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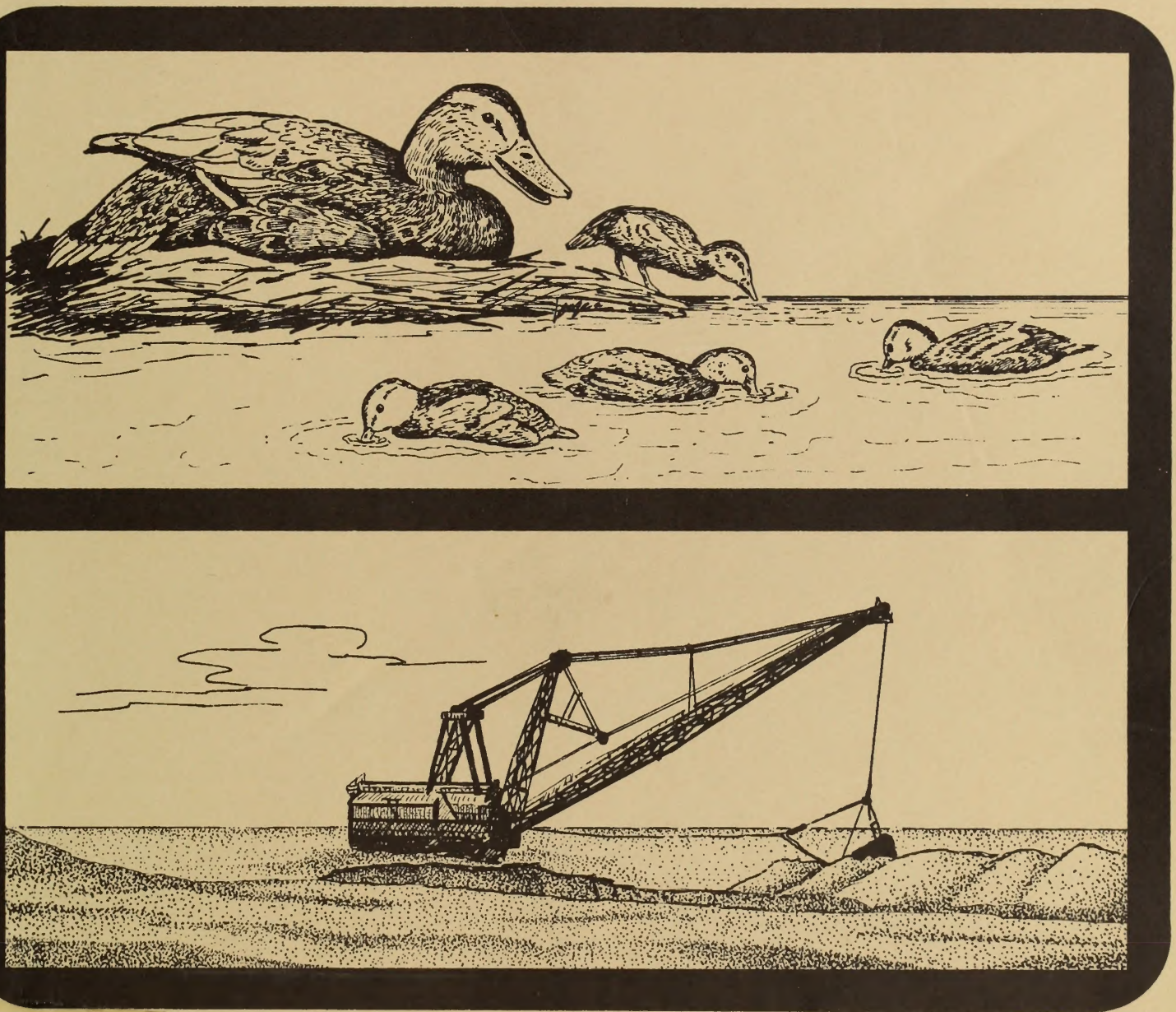
McKenzie-Williams Management Framework Plan



SUMMARY DECISION DOCUMENT

United States Department of the Interior
Bureau of Land Management
Dickinson District Office, North Dakota

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BLM-MT-PT-84-008-4410

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

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DECISION STATEMENT

This document contains land use decisions for the McKenzie-Williams Management Framework Plan. The decisions are based on recommendations published in June 1983 and the comments received on those recommendations.

Management of BLM-administered lands and resources in the planning area will be consistent with these decisions.

Submitted by Reed L. Smith
Dickinson District Manager

Date 1/9/84

Approved by Michael J. Penfold
State Director for Montana and the Dakotas

Date 1-9-84

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ALLEN I. OLSON
GOVERNOR

State of North Dakota

EXECUTIVE OFFICE
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Reading ___ Central ___

December 27, 1983

Mr. Reed Smith
District Manager
Bureau of Land Management
P.O. Box 1229
Dickinson, North Dakota 58601

Dear Mr. Smith:

The decision documents for the McKenzie-Williams and the Southwest North Dakota Management Framework Plans have been reviewed and are concurred in their present form. I am pleased with the progress on this planning process and understand that it will be completed in 1984 with the application of criteria screens #14 and #15. A decision concerning concurrence in the application of these criterion and their effects on the plans will be made at that time.

State natural resource agencies encourage the timely application of criteria #14 and #15 and the use of the case by case exception procedure when appropriate. These screens are an integral and important part of the overall planning process.

On the question of the dispositon or retention of BLM surface holdings, please refer to my letter of May 11, 1983, to the Secretary of the Interior.

Kindest regards.

Sincerely,

Allen I. Olson

ALLEN I. OLSON

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CHAPTER 1
INTRODUCTION

INTRODUCTION

PURPOSE AND SCOPE OF THE MFP

This document contains land use decisions for federal lands and resources in McKenzie and Williams counties and a portion of Divide County. The Dickinson District Office of the Bureau of Land Management (BLM) began work on this plan in April 1981. Land use recommendations were published in July 1983. The present document summarizes the plan, which is officially known as the McKenzie-Williams Management Framework Plan (MFP). The plan will guide the future management of federal coal, oil and gas, and certain federal lands.

The primary reason for preparing the McKenzie-Williams MFP was to explore the possibility of leasing federal coal. In terms of acres involved and the potential impacts of implementing the land use decisions, lignite coal is the most significant federal resource in the planning area. Before federal coal can be made available for leasing, a series of complex procedures must be accomplished. These procedures are described in the federal coal management regulations published in the *Federal Register* on July 19, 1979 (revised regulations published July 30, 1982). One such procedure is preparing a comprehensive land use plan. The McKenzie-Williams MFP fulfills the requirements for this type of plan.

It is important to recognize that this MFP is not a land use plan for private, state, or other (non-BLM) federal agency resources. In the McKenzie-Williams planning area federal mineral ownership is primarily split-estate (see Appendix A), which means that the BLM administers part or all of the mineral estate but has no jurisdiction over the surface estate. Because the BLM does not manage the surface over these federal minerals, the MFP does not contain decisions for use of the surface per se.

Federal split-estate mineral acres are not consolidated neatly in the McKenzie-Williams planning area. The federal mineral ownership is mixed in with nonfederal minerals in a checkerboard pattern, or—where there is a low percentage of federal minerals—there is an irregular pattern.

The surface lands administered by the BLM in the planning area are widely scattered, and management decisions are constrained by the limitations of small size (in terms of contiguous acres) and/or poor access. In the MFP these lands are referred to as "scattered tracts."

BACKGROUND

The Bureau of Land Management is responsible for the administration and management of millions of acres of federally owned lands and resources, primarily in the western states and Alaska. Most of these public lands include both the surface and subsurface rights; however, the BLM also administers federal mineral reservations that underlie private, state, or other federal agency ownership.

In North Dakota, the BLM administers approximately 5.9 million acres of split-estate mineral reservations and 68,000 acres of surface lands (both surface and subsurface rights).

The BLM surface lands in the state are mostly small scattered parcels. There are only two areas in North Dakota where BLM surface lands form somewhat consolidated blocks: in western Bowman County and northwestern Dunn County. The latter is known as the Lost Bridge Management Area and is included in the West-Central North Dakota Management Framework Plan. The former is known as the Big Gumbo Management Area and is included in the Southwest North Dakota MFP, prepared concurrently with the McKenzie-Williams MFP (see Map 1 in envelope on back cover).

OVERVIEW OF THE AREA

The McKenzie-Williams Planning Area is in the northwestern corner of North Dakota, bounded on the west by Montana. Along with McKenzie and Williams counties, five southwestern townships of Divide County adjacent to the northern boundary of Williams County are included. These townships were added to include the portion of the Hanks Coal Deposit that extends across the county line and to include four parcels of BLM surface land in these townships.

A wide variety of topographic features can be found in the area, varying from rough badlands in southern McKenzie County to the glaciated prairie pothole region in northern Williams County and southern Divide County. The major waterways are the Missouri, Yellowstone, and Little Missouri rivers.

The populations of the two counties are predominately rural, but the urban areas have grown rapidly in the last few years due to oil and gas development. The larger population centers are Williston (13,336), Watford City (2,119), Tioga (1,597), and Ray (766). The county populations are: McKenzie County, 7,132; and Williams County, 22,237. (All figures are from the 1980 census.)

The major industries in the area are oil and gas and agriculture, mostly in the form of dryland crops and livestock. There is some irrigated farming along the Yellowstone and Missouri rivers.

Williams County has had producing oil wells since the early 1950s. Since then, the oil and gas activity has spread over a larger portion of the planning area.

Coal has been mined in the planning area since homesteading days. Most of the early mines produced very small amounts of coal for local home heating use. These mines were operated by farmers and local businessmen and included both surface and underground operations. Most of the small surface mines and all of the underground mines were closed by the

early 1960's. Underground mining in North Dakota is uneconomical and impractical because of such factors as federal safety regulations, overburden type, and mining costs. The only active coal mine in the area is operated by Geo Resources Exploration, Inc., which produces leonardite, an oxidized form of lignite, from a small surface mine near Williston.

BLM management responsibility varies throughout the area. For planning purposes there are three major categories of BLM jurisdiction: coal, 1,050,687 acres; oil and gas, 32,058 acres; and surface lands (scattered tracts), 3,310 acres. The mineral acreages are for federal split-estate ownership. In North Dakota the BLM does not administer any public lands with nonfederal minerals; therefore, the surface acreage should be added to each of the mineral acreages to show total BLM mineral jurisdiction in the planning area.

Throughout the planning area, federal coal is scattered among privately owned coal. Some of this federal coal has been reserved along with all other minerals, some has been reserved with one or more other minerals (such as oil and gas), and in other tracts coal is the only mineral reserved to the government. Four hundred acres of federal coal near Williston have already been leased to industry by the BLM. The federal coal under consideration in this MFP is located in five deposits known to have a high to moderate potential for development by surface mining (see Map 2).

As with coal, the federal oil and gas occurs in three basic categories: alone, with one or more other minerals, or all minerals reserved. Most of the federal oil and gas in the planning area is under lease, but only a small percentage of the leased areas ever reaches the point of test well or production development. This percentage is increasing, however. The leased areas that are not developed are reexamined for lease renewal every ten years.

In McKenzie County, there is a large amount of land administered by the U.S. Forest Service (USFS). As the leasing agent for all federal minerals, the BLM actually issues any leases for minerals within USFS boundaries. However, since the USFS has the surface management responsibility and mineral development affects the surface environment, the USFS will prepare the land use plan for federal coal within USFS administrative boundaries (see Map 2), including split-estate mineral ownership (per 1980 Memorandum of Understanding between the Departments of Agriculture and Interior). The USFS also has planning responsibility for all federal oil and gas under surface lands administered by the USFS within the Little Missouri National Grassland.

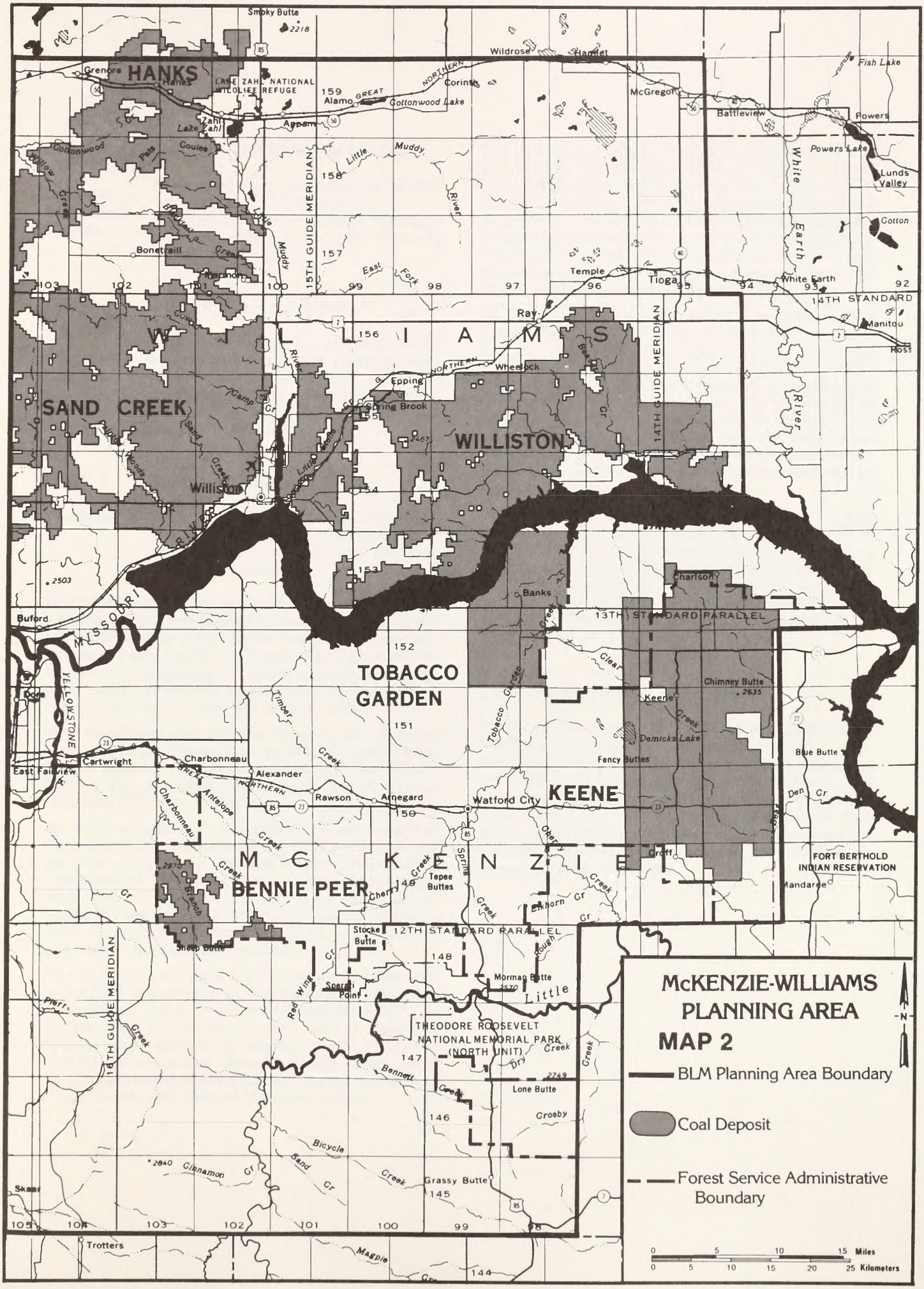
The National Park Service is currently preparing a natural resource management plan for the Theodore Roosevelt National Park. The three units of the park contain 70,416.39 acres. This includes the North Unit (24,070.32 acres), which is located in McKenzie County, and the South Unit (46,346.07 acres) and Elkhorn Unit (218 acres), both of which are located in Billings County.

The goal of the draft park plan, which was recently published, is to manage on a total ecosystem strategy. The primary resource management concern identified in the plan relates to air quality. The park has been classified as a Class I Air Quality Area. Offsite impacts to air resulting from extensive oil and gas development in the two counties encompassing the park are a major concern. Concern was also noted over potential coal-related impacts to the park's Class I airshed designation. The plan identifies a need to monitor air quality and mitigate the impacts of threats to the park's air quality.

PLANNING PROCESS OVERVIEW

Land use planning for the McKenzie-Williams MFP consists of seven basic steps, which are summarized below. We are now at step 7. Each of these steps requires the use of an interdisciplinary team.

STEP 1:	Identification of Issues (see Appendix B)
Issues	The public is asked to help identify issues relating to BLM management in the area. Later steps will be guided by the issues that have been identified.
STEP 2:	Development of Planning Criteria (see Appendix B)
Criteria	Criteria are prepared to guide the development of the plan, and to ensure that the plan will be tailored to the issues previously identified. The criteria also help prevent unnecessary data collection and analysis.
STEP 3:	Inventory Data Collection
Inventory	This includes the gathering of resource, environmental, social, and economic data needed to prepare the plan.
STEP 4:	Analysis of the Current Situation
Analysis	Information on the human and natural resources within the planning area is organized and analyzed, with particular emphasis on BLM-administered resources. (This information is contained in various District planning documents which are available for public inspection at the Dickinson District).


HANKS
SAND CREEK
WILLIAMS
WILLISTON
TOBACCO GARDEN
KEENE
BENNIE PEER
MCKENZIE
FORT BERTHOLD INDIAN RESERVATION
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK (NORTH UNIT)
LAKE ZAHL NATIONAL WILDLIFE REFUGE
15TH GUIDE MERIDIAN
14TH GUIDE MERIDIAN
13TH STANDARD PARALLEL
12TH STANDARD PARALLEL
14TH STANDARD
Williston
Watford City
Keene
Tioga
Grenora
Alamo
Wheelock
Epping
Ray
Charlson
Banks
Cartwright
Alexander
Rawson
Arnegard
Charbonneau
Fancy Buttes
Chimney Butte
Demicks Lake
Tepee Buttes
Mormon Butte
Lone Butte
Grassy Butte
Sheep Butte
Stocke Butte
Trotters
Missouri River
Yellowstone River
McKENZIE-WILLIAMS PLANNING AREA
MAP 2
BLM Planning Area Boundary
Coal Deposit
Forest Service Administrative Boundary
N
0 5 10 15 Miles
0 5 10 15 20 25 Kilometers

STEP 5:	Resource Staff Recommendations
In-house Recommendations	BLM resource specialists (such as geologists and wildlife biologists) recommend to the District Manager how the public lands and minerals should be managed.
STEP 6:	District Recommendations
Publication of Recommendations	After reviewing the resource staff recommendations, the District Manager develops the official land use recommendations for the District. These recommendations are published for public review.
STEP 7:	Land Use Decisions
Decision	After evaluation of public comments, the plan is modified where necessary and adopted, and the land use decisions are published.

Most major planning issues identified through our scoping efforts are related to coal mining and are addressed in the plan. Other coal-related concerns will be addressed at the next level of planning, known as "activity planning." During activity planning, after potential leasing tracts have been identified, these issues will be assessed in more detail.

New legislation and policies changed the planning approach of the Bureau from an MFP format to what is now called a resource management plan (RMP). During the planning "transition" the McKenzie-Williams MFP was initiated.

An RMP integrates an environmental assessment of the potential impacts associated with a range of land use plan alternatives. The RMP is the product of an "issue-driven" planning process. Issue-driven planning means that only those aspects of current management direction that are felt to be issues are examined through the formulation and evaluation of alternative management actions.

The McKenzie-Williams MFP incorporated elements of the RMP approach in that this planning effort was issue-driven. Public comments obtained through public meetings and brochures were used in the issue identification process. A number of energy-related and land management issued were identified, based on the judgement of the planning team, interagency consultation, and District Manager review.

The direction to resolve issues in certain ways was provided by the Dickinson District Manager, based on existing policy, public desires, and resource capabilities. In addition, planning criteria were developed to guide the resolution of issues (see Appendix B). Impact assessments developed for major coal planning issues such as agriculture are contained in other planning documents which are available for public review at the Dickinson District Office.

The land use decisions for federal coal address coal development areas of high to moderate potential. Screens are applied to these areas to categorize reserves on the basis of acceptability "for further consideration for leasing." At this stage of planning there is no decision to lease coal, only to consider or not consider areas for leasing. Any decision to lease will be made during the next phase (activity planning). A more detailed analysis of environmental, social, and economic impacts of coal leasing will be made at that time.

The land use decisions for the scattered tracts emphasize exchange and land pooling to allow BLM to reposition its land ownership pattern into more manageable blocks. The sale of tracts to the general public or transfer to another agency are other options. Management of proposed consolidation areas would be based on the multiple-use goals of the Bureau.

DOCUMENT FORMAT

The land use decisions for the McKenzie-Williams MFP are presented in two basic categories, split-estate minerals and scattered tracts. These categories are further divided into specific BLM programs, such as coal and grazing. Preceding the decision, there is a discussion of how the recommendations (now decisions) were changed on the basis of public comments, consultation, and internal review. Each decision is followed by the rationale.

CHAPTER 2
FEDERAL SPLIT-ESTATE MINERALS

FEDERAL SPLIT-ESTATE MINERALS

COAL

The objectives of the Interior Department's coal leasing program are to promote the timely and orderly development of publicly owned coal resources; to meet both long- and short-term needs for coal by leasing for reserves as well as to meet projected demand for production; to ensure that coal deposits are leased at their fair market value; to ensure that coal deposits are developed in consultation, cooperation, and coordination with other government agencies and Indian tribes; and to consider development of coal through a leasing system involving land use planning and an environmental assessment or environmental impact statement process.

Background

The BLM is obligated to make the highest quality, most economical, and environmentally acceptable coal available for leasing or exchange. This can only be accomplished through a scheduled leasing program so industry, state and local governments, and the public can plan for future development.

For planning purposes the federal coal lands in the McKenzie-Williams area are considered separately, by deposit. The deposits are defined by the boundaries of federal coal known to have a high to moderate potential for development by surface mining methods (see Appendix C). If an area has not been drilled (explored) to determine its coal development potential—or drilling information is not available to the BLM—that development area could not be included in the MFP planning process. Coal development potential constitutes the first screen used in analyzing federal coal lands.

In this MFP, areas of low development potential within a coal deposit are not included in any of the coal decisions. Whenever the term "deposit" is used, it is limited to coal with a high to moderate potential for development.

The BLM uses four other screens to determine which coal lands should not be considered further for possible leasing. The areas not excluded constitute the areas acceptable for further consideration for leasing during "activity planning." Within these acceptable areas, preliminary leasing tracts will be delineated for site-specific analysis. The four screens are addressed separately in the following general discussion and in the decisions for each coal deposit.

I. Unsuitability Criteria

The twenty unsuitability criteria (see Appendix D) address a wide range of ecological and cultural features. If no exception to the criterion (mitigating measure) is possible, the affected lands are excluded from further consideration for coal leasing. The approach to be used in making the final decisions on exceptions will be based on conservation and economic efficiency. Mining should occur in a manner that will allow for the achievement of highest economic efficiency, greatest recovery of the coal resource (conservation), and minimal environmental damage. This goal can be acheived by applying mitigating measures (exceptions) where allowable, acceptable, and feasible.

In some unsuitable areas the application of exceptions to the criteria could not be addressed. It was too early in the process. Some exceptions can only be applied at either tract selection time or mining permitting time (or at both times), when more site-specific studies and analyses are possible.

II. Resource Trade-offs

The unsuitability criteria do not address all potential resource values that may be found in federal coal lands. All of the coal deposits were analyzed to see if there were any areas with unique, site-specific resources warranting protection by the resource trade-offs screen. In applying this screen the value of mining the coal must be balanced against the value of the resource affected.

III. Surface Owner Consultation

Letters were sent to persons owning the surface over federal coal in the identified deposits. They were asked their views (for, against, or undecided) regarding development of the federal coal under their land. If a significant number of landowners in an area was opposed to leasing the federal coal under their surface lands, the area was excluded (see Appendix E).

As a preliminary step in analyzing opposition, it must be determined if there is enough federal coal in an area (or if there is a particular distribution pattern) to control eventual development. If federal coal is not a controlling factor in an area, a determination of "significant numbers of landowners opposed" would not be meaningful.

The following are considered in determining if there is a significant number of landowners opposed.

1. Actual number of those opposed to leasing;
2. Acreage included under "opposed;"
3. Percentage of federal coal in the total area;
4. Distribution pattern of federal coal;
5. Distribution pattern of "opposed" comments;
6. Location and number of existing federal leases;
7. Location and number of preference right leases;
8. Number and location of private and state coal leases;
9. Number and location of surface lease agreements on lands over federal coal.

Also to be considered is ongoing coal development, if any, in a particular deposit. If there is large-scale coal mining in an area, results of surface owner consultation could not be used to exclude an area from further consideration, for it has already been included in an active mining area; therefore, surface owner consultation could have only limited significance. If mining is occurring in an area, it is usually in the public interest to lease the federal coal (barring the presence of environmental or other problems). Not leasing the federal coal would result in by-pass; that is, the federal coal might become an unmined island. Once bypassed, it would probably never be mined.

Many of the surface owner consents currently in effect in the planning area were obtained by industry before passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). While it is true that federal law did not require consent before SMCRA (and thus surface owners lacked legal grounds for refusing to consent and, therefore, leverage in negotiating), there is no provision in the law or in federal coal regulations for treating pre-SMCRA consents different from post-SMCRA consents. The BLM is directed to interpret valid written consents as evidence that the surface owner is in favor of mining (CFR 3420.4 (ii)).

Even if an area is not excluded from further consideration as a result of surface owner consultation, landowners can still prevent the federal coal under their land from being leased. Landowners who qualify under the criteria of Section 714 of SMCRA—and who have not previously granted consent for mining—may prevent leasing simply by not giving consent (see Appendix E). Evidence of consent is not needed until shortly before the actual leasing would occur.

IV. Consistency With Other Land Use Plans

In land use planning and resource actions, the BLM strives to be as consistent as possible with plans, policies, and programs of local, tribal, county, state, and other federal agencies. During preparation of the McKenzie-Williams MFP, some federal coal lands were excluded from further consideration for leasing on the basis of consistency with recent comprehensive planning and zoning efforts by the city of Williston. Other federal lands excluded from further consideration for leasing were those lands between 300 feet and 500 feet from occupied dwellings, to account for the difference between federal and state laws.

Changes

Many of the areas identified as unacceptable for further consideration for coal leasing (recommendations of July 1983) have been changed. Adjustments that were made are described in the discussions for the individual coal deposits.

A public hearing was held in Williston on September 27, 1983, and written comments on the land use plan recommendations were received through September 30, 1983. The comments received focused attention on a number of coal-related issues, such as air quality, mined land reclamation, agriculture, and social-economic concerns. Management direction for the resolution of these issues is provided in 43 CFR 3420.1-4(e)(3). The BLM recognizes that coal development would impact the environment and lifestyles in the planning area and some of these potential impacts were considered in preparing the MFP; however, a detailed assessment of these impacts can only be made after specific coal tracts have been delineated in activity planning.

Changes in the initial coal deposit recommendations involve a reassessment in the application of the four coal exclusion screens. Based on comments received and in-house review, the BLM has reevaluated existing data upon which a number of recommendations were based.

In the case of Unsuitability Criterion 3, some comments noted that state law provides for a 500-foot buffer around occupied buildings. Under federal regulations (43 CFR 3461.1(c)(1)) a 300-foot buffer is required. The final decisions treat the additional 200 feet as unacceptable under the land use plan consistency screen.

Changes in recommendations for Unsuitability Criteria 7, 11, 12, 14, and 15 have also been made. The basis for the changes were regulation change for Criterion 7 and a determination of insufficient data for the other criteria. Criteria 11, 12, 14, and 15 will be fully applied—and cultural resources will be considered under the resources trade-off screen—upon completion of data acquisition and analysis. The results of these screening steps will be published as an MFP addendum, scheduled for late 1984.

Changes were also made in the recommendations regarding slope and buried channel aquifers. Mining and reclamation are being successfully permitted and carried out in areas with slopes as steep as 30%. The plan decision identifies areas with concentrations of slopes of 30% or greater as unacceptable for further consideration for leasing. The original recommendation identified areas with concentrations of slopes greater than 20% as unacceptable for further consideration for leasing.

The resource trade-offs decision for buried channel aquifers was only amended for the Williston Deposit. New information currently being analyzed will better define aquifer location boundaries and other properties and permit a further assessment of mining feasibility.

Most of the changes noted above are discussed in the District responses to public comments received.

ALL COAL DEPOSITS

General Decisions

Decision A: Issue licenses to mine coal to qualified applicants within those areas designated acceptable for further consideration for leasing. Each application will be assessed on its individual merits.

Rationale: As other energy supplies become more scarce, the demand for coal through licenses could increase. Such licenses are specifically authorized in Section 8 of the Mineral Leasing Act of 1920. They are strictly to provide for local domestic need for coal. Under the provisions of the regulations individuals or associations of individuals are allowed to mine federal coal for their own use. A license to mine may be issued to a municipality solely for the nonprofit mining and disposal of coal to its own residents. The Bureau may also authorize a recognized and established relief agency of any state to take federally owned coal within the state and provide it to families

on its rolls who require the coal for household use but are unable to pay for the coal. These licenses do not require the payment of rentals or royalities. Any mining activities authorized by a license are subject to the Surface Mining Control and Reclamation Act.

Decision B: Leave all federal coal lands in this planning area open for coal exploration. However, applications will be assessed and evaluated on a case-by-case basis. These specific evaluations will determine whether or not to allow exploration to occur and what mitigation should be required as a condition for issuing the coal exploration license.

Rationale: All of the area has not been adequately explored to determine the exact nature and quality of the coal resources. This information is a vital part of overall energy planning in the area, and only through exploration programs can we obtain that information. Exploration usually can occur without causing significant adverse impacts to the environment.

Decision C: Maintain up-to-date information on federal coal resources in the planning area. Assess the new information periodically and revise the land use plan accordingly.

Rationale: Planning is never totally complete until all resource information is available and has been analyzed. New data could require significant changes in the plan.

Decision D: Proposed coal exchanges will be evaluated on a case-by-case basis.

Rationale: Exchanges may allow for improvements in the management of federal coal.

KEENE DEPOSIT

Decision: Drop from consideration for leasing the federal coal resources in the Keene Deposit (see Map 2) for the life of the plan. Reconsider coal leasing as oil and gas operations are completed.

Rationale: Where it is obvious during land use planning that a significant amount of oil and gas production would be lost if coal were mined, it is BLM policy that the area should be eliminated from further consideration for leasing until the potential conflict no longer exists.

The Keene Deposit is located along the crest of the Nesson Anticline, which is one of the two largest geologic structures in the Williston Basin. Oil has been produced from fields overlapping the deposit since 1953. Production has continued on a large scale to the present day. Fourteen producing oil fields and six known geologic structures (KGSs) at least partially overlap the deposit boundaries. Coal development in this deposit could jeopardize a major portion of the State's oil production. Production data for each field is shown in Table I.

TABLE I

OIL FIELDS AFFECTING THE KEENE DEPOSIT
(production in barrels)

Field	1981	1982	Cumulative*
Antelope	364,068	342,043	33,341,838
Bear Den	31,205	29,618	809,234
Berg	26,366	40,229	66,595
Blue Buttes	1,308,030	1,429,121	28,015,148
Camel Butte	30,364	43,577	737,807
Charlson	1,120,775	718,330	70,773,200
Clear Creek	155,471	146,430	7,913,651
Croff	21,276	20,241	910,053
Dimmick Lake	31,869	17,570	1,798,782
Hawkeye	122,138	85,695	12,993,045
Johnson Corner	6,588	11,587	18,175
Keene	89,177	154,939	2,452,650
Shing	28,430	21,143	1,433,789
Union Center	106,265	77,913	439,191
Statewide	45,707,000	47,481,324	689,271,393

*Cumulative production is through 1982.

APPLICATION OF SCREENS

The following decisions address the four exclusion screens discussed earlier. These decisions are grouped according to coal deposit and type of screen. Maps depict the effects of applying specific screens, as well as the cumulative effects. Tables following the decisions for each deposit show the effects of screen application in terms of acreage and coal tonnage. In the summary section, the results of the screening process for all coal deposits are discussed.

Because of extensive oil and gas conflicts throughout the Keene Deposit, consideration of federal coal leasing there has been deferred. Therefore, the exclusion screens were not applied in that deposit.

Hanks Deposit

Decision: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Decisions

I. Unsuitability Criteria

General:

Decision: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, and 20.

Rationale: The Hanks Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 1: *Federal Land Systems and Incorporated Cities, Towns, and Villages*

Decision: Federal coal lands within the town of Hanks and the National Wildlife Refuge system are unsuitable under this criterion (see Map 3).

Rationale: Criterion 1 requires that these areas be designated unsuitable.

Criterion 3: *Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings* (Lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks).

Decision: These areas will be designated as suitable with special lease stipulations. The stipulations will require a successful lessee to show that the requirements for one of the exceptions to the criterion have been met prior to mine plan approval. If the requirements are not met, the areas will be unavailable for mining.

Rationale: Regulations require that these areas be designated unsuitable, but also allow for future application of exceptions by proper authorities or individuals.

Note: In addition to the 300-foot buffer around occupied dwellings, an additional 200 feet is acceptable for leasing with special stipulations, as under Criterion 3, on the basis of consistency with North Dakota law. (See decision for land use plan consistency screen.)

Criterion 7: *Historic Land and Sites*

Decision: Do not exclude any federal coal lands from further consideration for leasing based on Criterion 7.

Rationale: Effective January 6, 1984, Criterion 7 is changed to address only publicly owned historic and cultural resources over federal coal (*Federal Register*, December 7, 1983, pp. 54819-54820). There are no publicly owned places on federal lands within this deposit which are on the National Register of Historic Places. (A decision under the resource trade-off screen will be considered following collection of data adequate to address impacts to the cultural and historic resource. See resource trade-off screen.)

Criterion 14: *Federal Lands Which Are High-Priority Habitat for Migratory Bird Species of High Federal Interest on a Regional or National Basis.*

Decision: Criterion 14 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of this criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of this unsuitability assessment.

Criterion 15: *Federal Lands Which Are Fish and Wildlife Habitat for Resident Species of High Interest to the State and Are Essential for Maintaining These Priority Wildlife Species.*

Decision: Criterion 15 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of the criterion will be made upon completion of necessary data acquisition and analysis. The results will

be published in an MFP addendum, scheduled for late 1984. Consultation with the North Dakota Game and Fish Department will be an integral part of the unsuitability assessment for this criterion.

II. Resource Trade-Offs

Decision: A portion of the watershed for the lake at Lake Zahl National Wildlife Refuge is dropped from further consideration for coal leasing (see Map 3).

Rationale: Refuge lands are part of the federal lands system considered unsuitable under Criterion 1. At this refuge the lake is an integral part of the purpose of the refuge. The watershed area shown is necessary to maintain the quality and quantity of water in the lake.

Decision: Areas with high concentrations of steep slopes, as shown in Map 4, are unacceptable for further consideration for coal leasing.

Rationale: The breaks topography found in this coal deposit is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography in these areas also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting and other wildlife-related activities. In order to assure the continued existence of these values and to satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct in high concentrations of steep slopes (30% or greater), because of problems with slope stability and mining economics.

Decision: Areas where buried channel aquifers occur (see Map 3) are unacceptable for further consideration for coal leasing.

Rationale: These buried channel aquifers are important water sources with high yields and very good quality. In most areas they are capable of being used as a water source for irrigation as well as domestic and livestock uses. The only source of replacement water with comparable quantity and quality for these areas is Lake Sakakawea. It would not be practical to replace this water source by a pipeline from the lake.

Decision: All federal coal beneath private surface is acceptable for further consideration for leasing pending further study of the cultural resource.

Rationale: Resource trade-offs based on cultural resource values will be considered in an MFP addendum scheduled for late 1984 if funding can be acquired for data acquisition. In response to National Historic Preservation Act requirements, the MFP must address the effect of leasing federal coal on cultural resource values irrespective of surface ownership. The MFP decision will be made after consultation with the State Historic Preservation Office and, if necessary, the Advisory Council on Historic Preservation.

III. Surface Owner Consultation

Decision: Do not exclude any federal coal lands from further consideration for leasing on the basis of surface owner opposition.

Rationale: As shown in Map 5, the opposition that was expressed is relatively scattered, and in portions of the deposit there is considerable evidence of coal leasing (leases covering private coal as well as the surface over federal coal).

See Appendix F for consultation statistics.

IV. Land Use Plan Consistency

Decision: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

Decision: In addition to the 300-foot buffer around occupied dwellings under Unsuitability Criterion 3, an additional 200 feet beyond the buffer around occupied dwellings is acceptable for leasing with special stipulations, as under Criterion 3, according to state law and regulations. Lease stipulations would require a successful lessee to show that the requirements for an exception have been met prior to mine plan approval.

Rationale: This decision is consistent with state law, which prohibits mining within 500 feet of occupied dwellings, subject to possible exceptions. Exceptions may be applied at mine plan time.

TABLE II
APPLICATION OF COAL EXCLUSION SCREENS

HANKS DEPOSIT

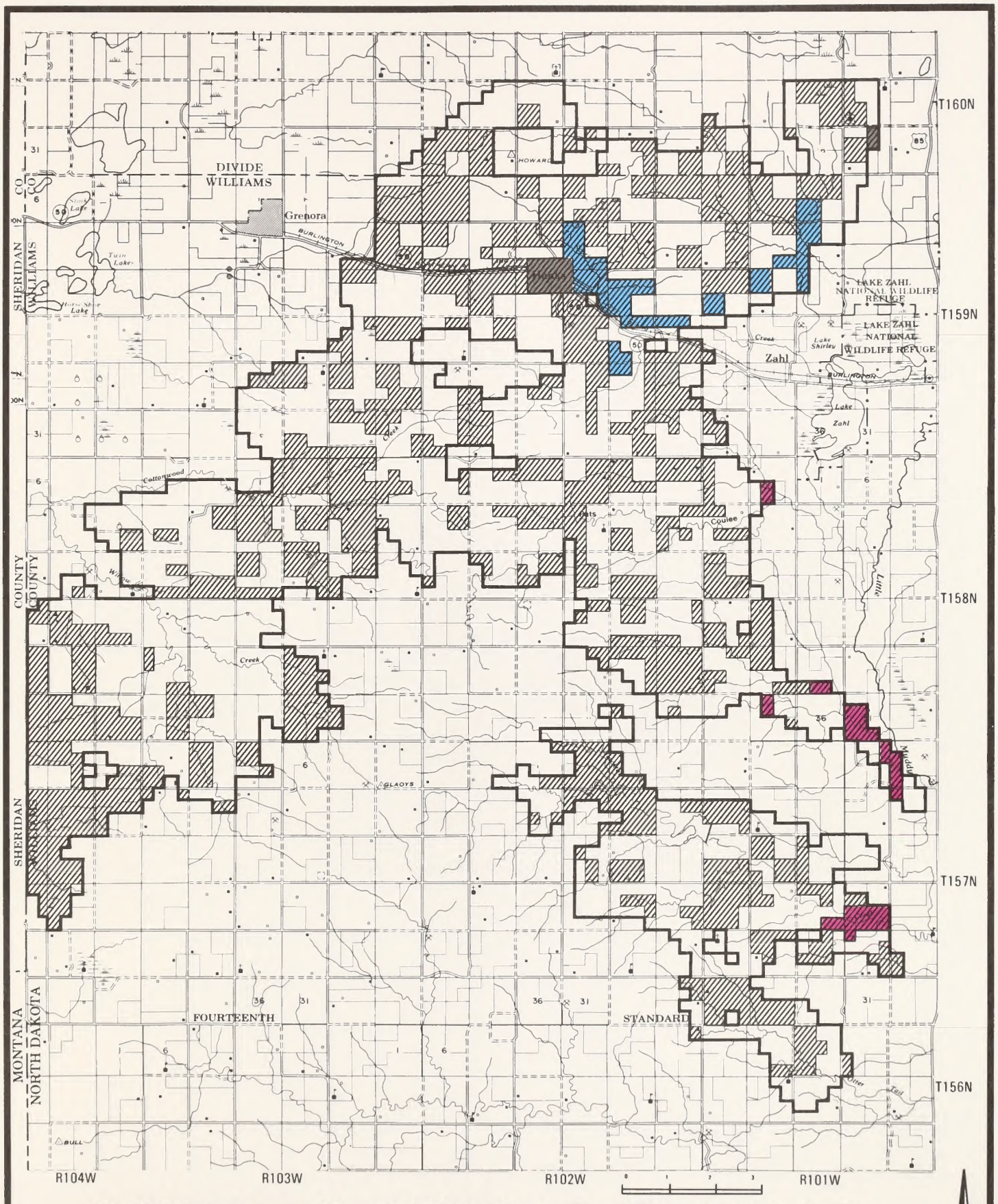
	Acres	Thousands of Tons
Total Coal In Deposit	108,500	1,627,100
Total Federal Coal In Deposit	48,100	726,400
Total Federal Coal Excluded From Further Consideration	5,480	81,239
Total Federal Coal Acceptable for Further Consideration for Leasing Pending Further Study	42,620	645,161

(See Map 6 for illustration of the above.)

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 1	560	7,014
Resource Trade-Offs		
Slope	1,920	22,778
Wildlife Refuge Watershed	1,760	22,176
Buried Channel Aquifer	1,200	7,427
Surface Owner Consultation	0	0
Land Use Plan Consistency	0	0

Note: The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen. Estimates for Criterion 3 are not shown because application of exceptions could allow mining in large portions of the areas affected.

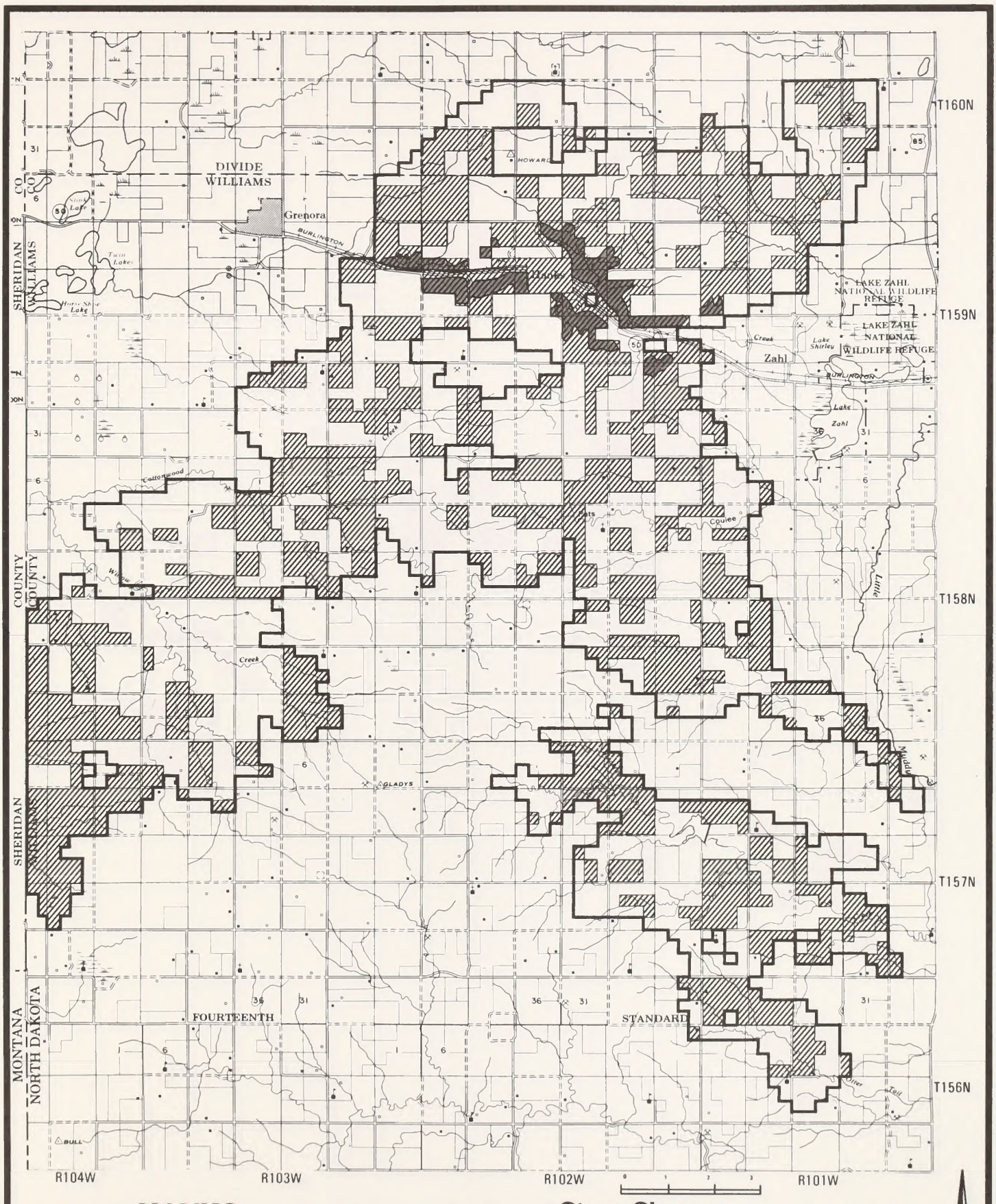


HANKS MAP 3
COAL DEPOSIT

Unsuitability Criterion 1 and Resource Trade-offs

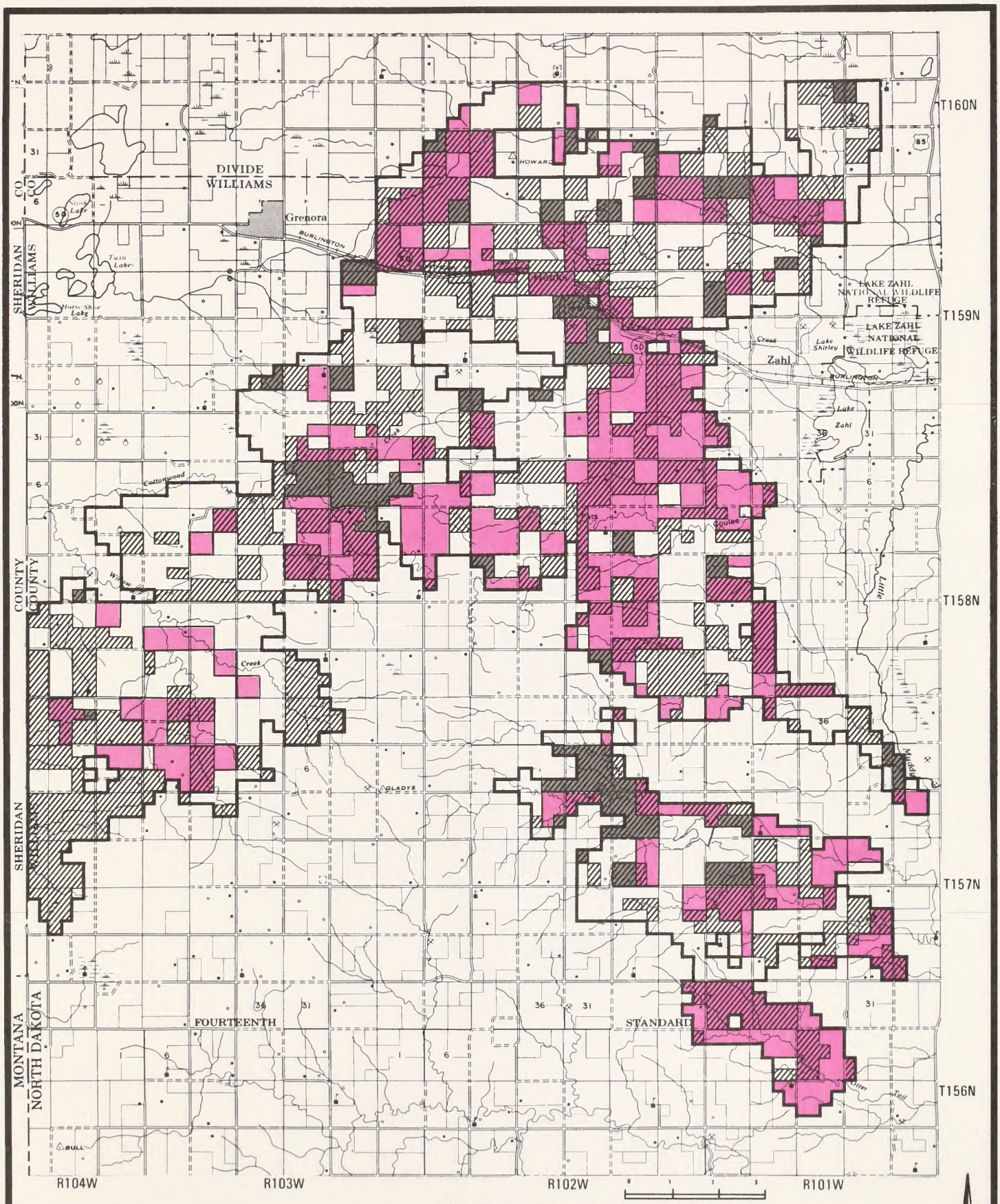
- Criterion 1
- Wildlife Refuge Watershed
- Buried Channel Aquifer
- Federal Coal Reservation

N



HANKS COAL DEPOSIT

MAP 4

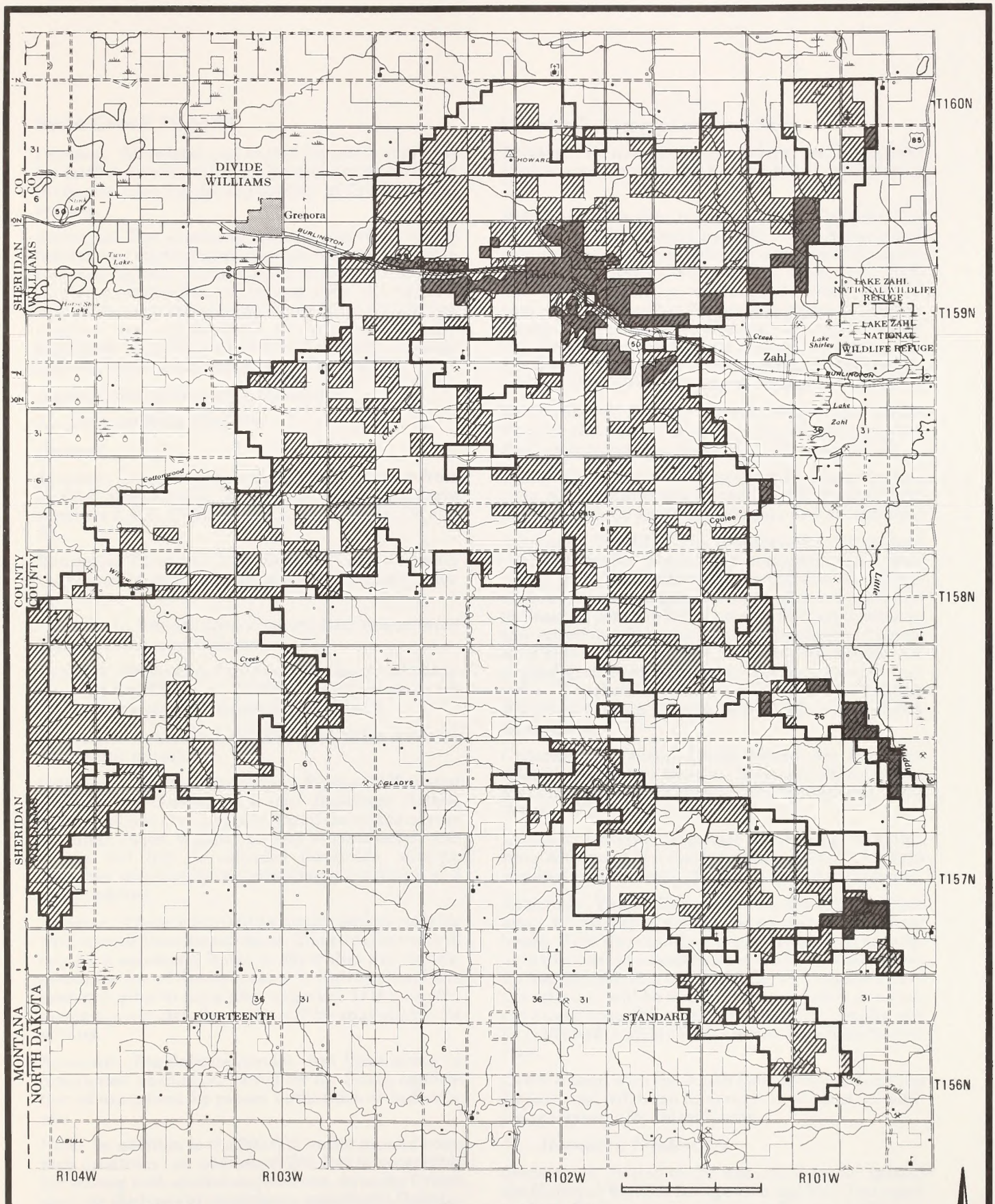


HANKS COAL DEPOSIT

MAP 5

Surface Owner Consultation

- Surface Owners Opposed to Mining
- Land Covered by Private Lease Agreements for Coal Mining
- Federal Coal Reservation



HANKS COAL DEPOSIT MAP 6

Cumulative Effect of Screens

Federal Coal Reservation

Areas Excluded from Further Consideration for Coal Leasing

N

Sand Creek Deposit

Decision: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Decisions

I. Unsuitability Criteria

General:

Decision: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, and 20.

Rationale: The Sand Creek Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 1: *Federal Land Systems and Incorporated Cities, Towns, and Villages*

Decision: Federal coal lands within the city of Williston and the National Wildlife Refuge system are unsuitable under this criterion (see Map 7).

Rationale: Criterion 1 requires that these areas be designated unsuitable.

Criterion 3: *Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings* (Lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks.)

Decision: These areas will be designated as suitable with special lease stipulations. The stipulations will require a successful lessee to show that the requirements for one of the exceptions to the criterion have been met prior to mine plan approval. If the requirements are not met, the areas will be unavailable for mining.

Rationale: Regulations require that these areas be designated unsuitable, but allow for future application of exceptions by proper authorities or individuals.

Note: In addition to the 300-foot buffer around occupied dwellings, an additional 200 feet is acceptable for leasing with special stipulations, as under Criterion 3, on the basis of consistency with North Dakota. (See decision for land use plan consistency screen.)

Criterion 7: *Historic Land and Sites*

Decision: Do not exclude any federal coal lands from further consideration for leasing based on Criterion 7.

Rationale: Effective January 6, 1984, Criterion 7 is changed to address only publicly owned historic and cultural resources over federal coal (*Federal Register*, December 7, 1983, pp. 54819-54820). There are no publicly owned places on federal lands within this deposit which are on the National Register of Historic Places. (A decision under the resource trade-off screen will be considered following collection of data adequate to address impacts to the cultural and historic resource. See resource trade-off screen.)

Criterion 14: *Federal Lands Which Are High-Priority Habitat for Migratory Bird Species of High Federal Interest on a Regional or National Basis.*

Decision: Criterion 14 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of this criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of this unsuitability assessment.

Criterion 15: *Federal Lands Which Are Fish and Wildlife Habitat for Resident Species of High Interest to the State and Are Essential for Maintaining These Priority Wildlife Species.*

Decision: Criterion 15 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of the criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984.

Consultation with the North Dakota Game and Fish Department will be an integral part of the unsuitability assessment for this criterion.

II. Resource Trade-Offs

Decision: A portion of the watershed for the lake at the National Wildlife Refuge area (see Map 7) is unacceptable for further consideration for coal leasing.

Rationale: Wildlife refuge lands are considered unsuitable under Criterion 1. At this refuge the lake is an integral part of the purpose of the refuge. The watershed area shown is necessary to maintain the quality and quantity of water in the lake.

Decision: A buffer zone of one-half mile around the Agriculture Experiment Station, Williston Branch, is unacceptable for further consideration for coal leasing (see Map 7).

Rationale: This station has been conducting agricultural research for many years. The data collection that is a part of this research would be sensitive to otherwise small changes in the baseline microclimate and fugitive dust conditions in the area. This buffer is necessary to protect the validity of baseline data and ongoing research efforts.

Decision: The areas with high concentrations of steep slopes (shown in Map 8) are unacceptable for further consideration for coal leasing.

Rationale: The breaks topography found in this coal deposit is a unique topographic feature and has high aesthetic value to people living in North Dakota. The broken topography in these areas also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting and other wildlife-related activities. In order to assure the continued existence of these values and to satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct high concentrations of steep slopes (30% or greater), due to problems with slope stability and mining economics.

Decision: Areas where buried channel aquifers occur (see Map 7) are unacceptable for further consideration for coal leasing.

Rationale: These buried channel aquifers are important water sources with high yields and good quality. In most areas they are capable of being used as a water source for irrigation as well as domestic and livestock uses. The only source of replacement water with comparable quantity and quality for these areas is Lake Sakakawea. It would not be practical to replace this water source by a pipeline from the lake.

Decision: All federal coal beneath private surface is acceptable for further consideration for leasing pending further study of the cultural resource.

Rationale: Resource trade-offs based on cultural resource values will be considered in an MFP addendum scheduled for late 1984 if funding can be acquired for data acquisition. In response to National Historic Preservation Act requirements, the MFP must address the effect of leasing federal coal on cultural resource values irrespective of surface ownership. The MFP decision will be made after consultation with the State Historic Preservation Office and, if necessary, the Advisory Council on Historic Preservation.

III. Surface Owner Consultation

Decision: Exclude from further leasing consideration the federal coal indicated on Map 9. This coal is within areas of significant surface owner opposition.

Rationale: In Area I, 87 percent of the federal coal is associated with opposition. That opposition accounts for 61 percent of the total coal in the area. Only about 1 percent of the coal is affected by a private coal lease. There are no federal coal leases in effect or surface lease agreements over federal coal.

In Area II, 67 percent of the federal coal is associated with surface owner opposition, accounting for 48 percent of the total coal in the area. Only 11 percent of the area is affected by a private coal lease (320 acres) or surface lease agreement over federal coal (200 acres).

See Appendix G for consultation statistics.

IV. Land Use Plan Consistency

Decision: Exclude from further consideration for leasing some of the federal coal which lies within the area of zoning authority of the city of Williston (see Map 8).

Rationale: This area is zoned for residential, open space, and industrial land uses. The city of Williston expects to need this area for expansion.

Decision: In addition to the 300-foot buffer around occupied dwellings under Unsuitability Criterion 3, an additional 200 feet beyond the buffer around occupied dwellings is acceptable for leasing with special stipulations, as under Criterion 3, according to state law and regulations. Lease stipulations would require a successful lessee to show that the requirements for an exception have been met prior to mine plan approval.

Rationale: This decision is consistent with state law, which prohibits mining within 500 feet of occupied dwellings, subject to possible exceptions. The exceptions are not applied at this time, but may be applied at mine plan time.

TABLE III
APPLICATION OF COAL EXCLUSION SCREENS

SAND CREEK DEPOSIT

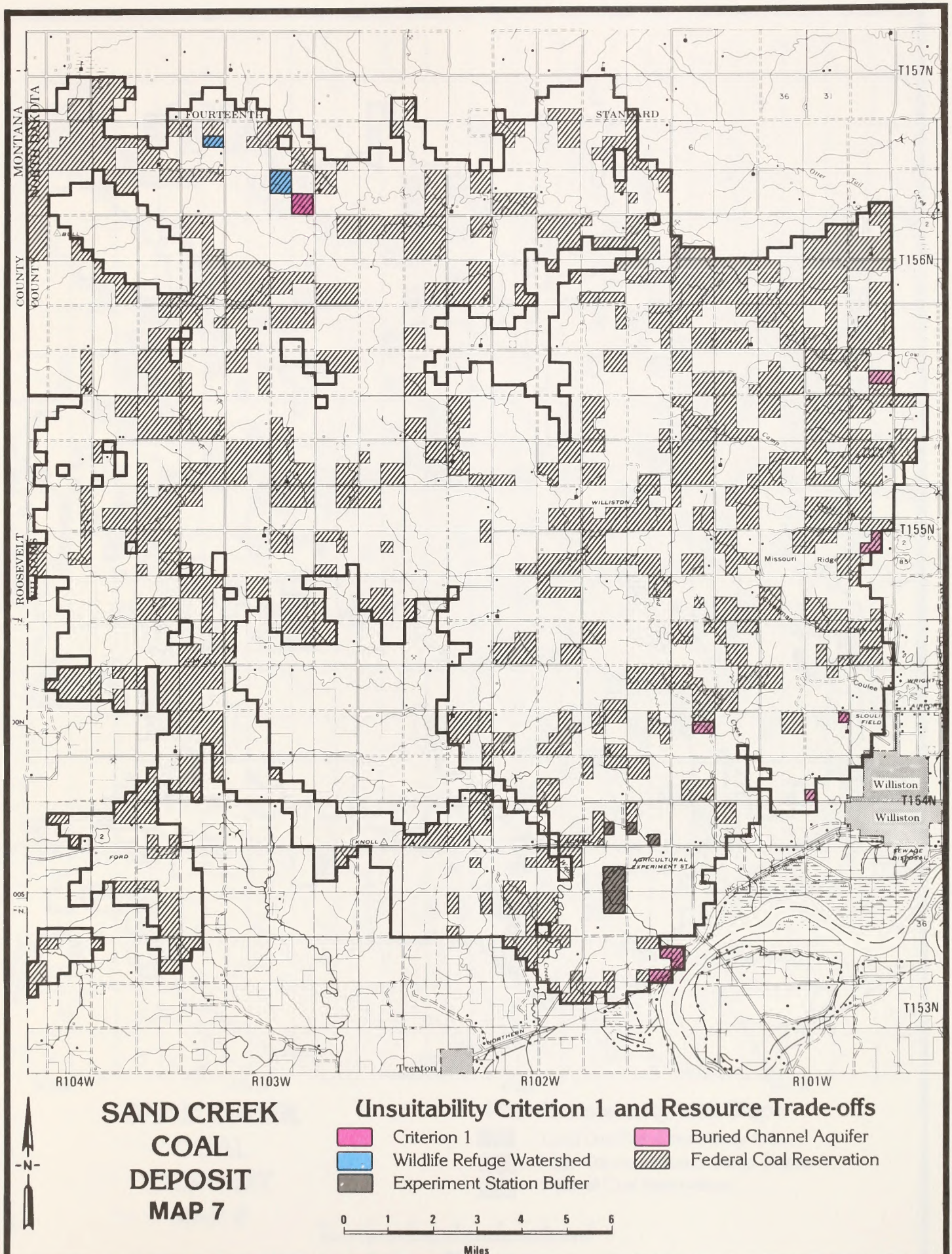
	Acres	Thousands of Tons
Total Coal In Deposit	174,880	2,928,000
Total Federal Coal In Deposit	57,860	975,000
Total Federal Coal Excluded From Further Consideration	7,890	128,912
Total Federal Coal Acceptable for Further Consideration for Leasing Pending Further Study	49,970	846,088

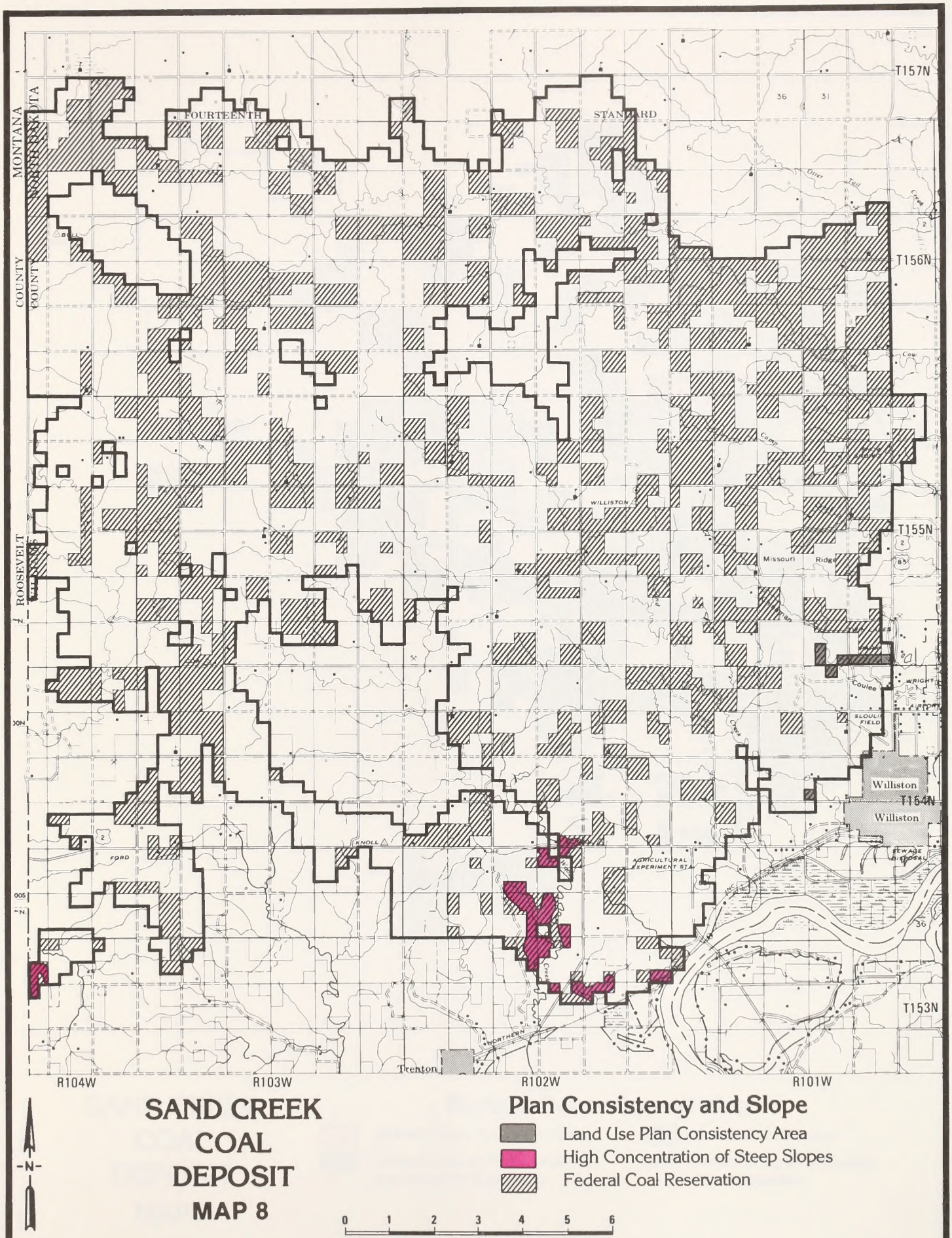
(See Map 10 for illustration of the above.)

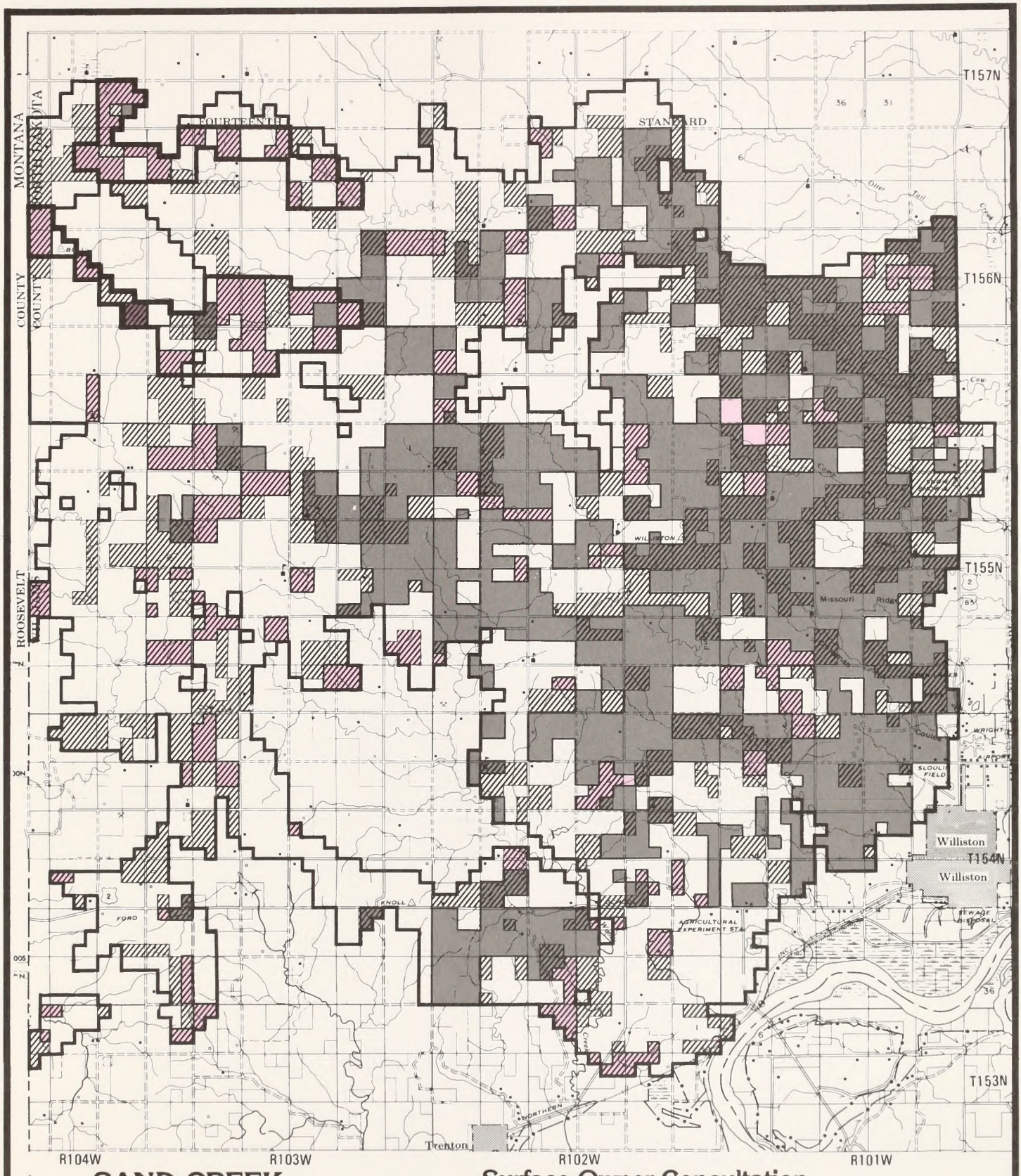
EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 1	200	3,080
Resource Trade-Offs		
Slope	1,050	16,495
Experiment Station Buffer	440	10,857
Buried Channel Aquifer	520	7,084
Wildlife Refuge Watershed	240	3,360
Surface Owner Consultation	5,520	82,355
Land Use Plan Consistency	320	7,182

Note: The sums of acreage and tonnage amounts for screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen. Estimates for Criterion 3 are not shown because application of exceptions could allow mining in large portions of the areas affected.


MONTANA
NORTH DAKOTA
COUNTY
ROOSEVELT
FOURTEENTH
STANDARD
WILLISTON
Missouri Ridge
Coulee
SLOULIN FIELD
Williston
Williston
KNOLL
FORD
AGRICULTURAL EXPERIMENT STA
SEWAGE DISPOSAL
Trenton
NORTHERN
T157N
T156N
T155N
T154N
T153N
R104W
R103W
R102W
R101W
SAND CREEK
COAL
DEPOSIT
MAP 7
-N-
Unsuitability Criterion 1 and Resource Trade-offs
Criterion 1
Wildlife Refuge Watershed
Experiment Station Buffer
Buried Channel Aquifer
Federal Coal Reservation
0 1 2 3 4 5 6
Miles


T157N
T156N
T155N
T154N
T153N
R104W
R103W
R102W
R101W
MONTANA
COUNTY
ROOSEVELT
FOURTEENTH
STANDARD
WILLISTON
Missouri
Ridge
Coulee
WRIGHT
SLOULIN FIELD
Williston
Williston
KNOLL
FORD
AGRICULTURAL EXPERIMENT STA
SEWAGE DISPOSAL
NORTHERN
Trenton
Otter Tail Creek
36
31
6
1
2
SAND CREEK
COAL
DEPOSIT
MAP 8
N
Plan Consistency and Slope
Land Use Plan Consistency Area
High Concentration of Steep Slopes
Federal Coal Reservation
0 1 2 3 4 5 6
Miles



SAND CREEK COAL DEPOSIT

MAP 9

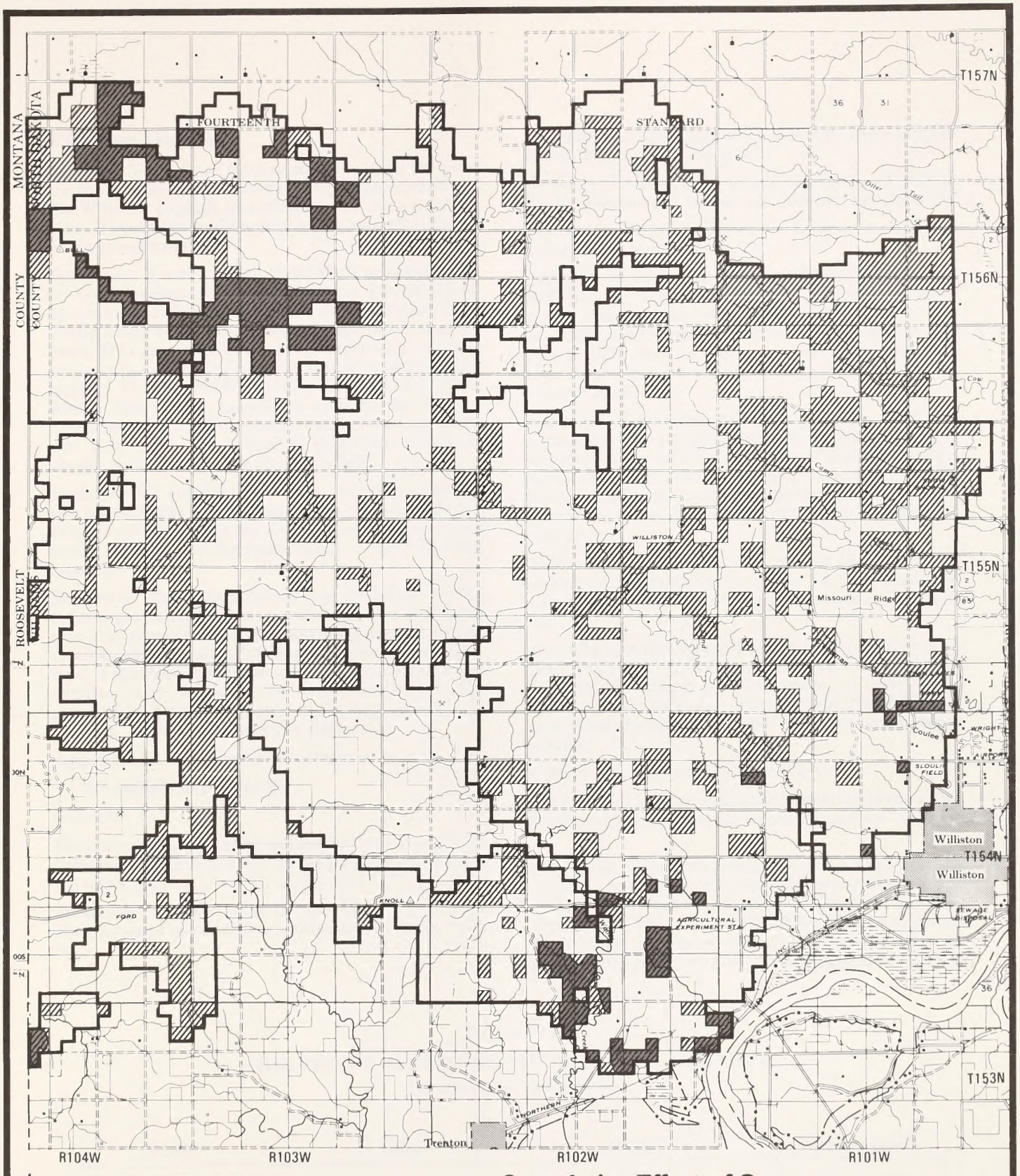
Surface Owner Consultation

- Surface Owners Opposed to Mining
- Lands Covered by Private Lease Agreements for Coal Mining
- Federal Coal Reservation
- Areas with Significant Surface Owner Opposition

-N-

0 1 2 3 4 5 6

Miles



SAND CREEK COAL DEPOSIT

MAP 10

Cumulative Effect of Screens

Areas Excluded from Further Consideration for Coal Leasing

Federal Coal Reservation

-N-

0 1 2 3 4 5 6

Miles

Williston Deposit

Decision: Drop from further consideration for leasing the federal coal resources in the eastern portion of the Willison Deposit (see Map 11) for the life of the plan. Reconsider coal leasing in this area after the oil fields are exhausted.

Rationale: It is the policy of the BLM to grant priority to oil development over coal where the coal development could disrupt significant oil production. This would likely occur in the eastern segment of this deposit. This area is still one of the larger oil producing areas in the state. The impacts would be most signficant in T154N, R95W; T155N, R95W; and T155N, R96W. These three townships straddle the Nesson Anticline and contain extensive oil production facilities. Four fields are located in this area. (Table IV shows production figures for each field.)

Decision: All federal coal in this deposit outside of the oil and gas area noted above is available for further consideration for leasing, except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Decisions

I. Unsuitability Criteria

General:

Decision: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 2, 4, 5, 6, 8, 9, 10, 12, 13, 16, 17, 18, and 20.

Rationale: The Williston Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 1: *Federal Land Systems and Incorporated Cities, Towns, and Villages*

Decision: Federal coal within the town of Spring Brook is unsuitable under this criterion (see Map 12).

Rationale: Under Criterion 1 this area must be designated unsuitable.

Criterion 3: *Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings* (Lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks.)

Decision: These areas will be designated as suitable with special lease stipulations. The stipulations will require a successful lessee to show that the requirements for one of the exceptions to the criterion have been met prior to mine plan approval. If the requirements are not met, the areas will be unavailable for mining.

Rationale: Regulations require that these areas be designated unsuitable, but allow for future application of exceptions by proper authorities or individuals.

Note: In addition to the 300-foot buffer around occupied dwellings, an additional 200 feet is acceptable for leasing with special stipulations, as under Criterion 3, on the basis of consistency with North Dakota law. (See decision for land use plan consistency screen.)

Criterion 7: *Historic Land and Sites*

Decision: Do not exclude any federal coal lands from further consideration for leasing based on Criterion 7.

Rationale: Effective January 6, 1984, Criterion 7 is changed to address only publicly owned historic and cultural resources over federal coal (*Federal Register*, December 7, 1983, pp. 54819-54820). There are no publicly owned places on federal lands within this deposit which are on the National Register of Historic

TABLE IV

OIL FIELDS AFFECTING THE WILLISTON DEPOSIT
(production in barrels)

Field	1981	1982	Cumulative*
Beaver Lodge	2,682,499	2,487,085	101,954,590
Capa	61,239	54,112	11,308,610
Grinnel	18,714	13,515	154,199
Hofflund	58,399	32,568	2,997,423
Statewide	45,707,000	47,481,334	689,271,393

*Cumulative production is through 1982.

Places. (A decision under the resource trade-off screen will be considered following collection of data adequate to address impacts to the cultural and historic resource. See resource trade-off screen.)

Criterion 11: *Bald and Golden Eagle Nests*

Decision: This criterion cannot be fully applied at this time. The areas are suitable pending collection of data required to fully apply the criterion or exceptions.

Rationale: As explained in the June 1983 recommendations document, inadequate data prevents the full application of this criterion. The criterion will be fully applied upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for completion in November 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of the unsuitability assessment for this criterion.

Criterion 14: *Federal Lands Which Are High-Priority Habitat for Migratory Bird Species of High Federal Interest on a Regional or National Basis.*

Decision: Criterion 14 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of this criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of this unsuitability assessment.

Criterion 15: *Federal Lands Which Are Fish and Wildlife Habitat for Resident Species of High Interest to the State and Are Essential for Maintaining These Priority Wildlife Species.*

Decision: Criterion 15 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Fuil application of the criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the North Dakota Game and Fish Department will be an integral part of the unsuitability assessment for this criterion.

Criterion 19: *Alluvial Valley Floors*

Decision: Alluvial valley floors (AVF) in the deposit are unsuitable; however, since final delineation cannot be done until mining plan time, application of this criterion is deferred. Map 12 shows preliminary designations of AVF.

Rationale: Information is insufficient at this time to make final determinations on the AVF potentially associated with Beaver, Long, and Stony creeks. It has not yet been determined whether or not protection of these potential AVF is needed and to what extent. The maximum extent of unsuitability designation will not be more than that shown on Map 12.

II. Resource Trade-Offs

Decision: The area along the shoreline of Lake Sakakawea that is depicted in Map 13 is unacceptable for further consideration for coal leasing.

Rationale: Lake Sakakawea is the largest and best quality surface water body in the state and is also the most highly developed recreational resource. A buffer is necessary to protect the quality of the edgewaters of the lake and also to ensure the quality of recreational experiences.

Decision: The areas with high concentrations of steep slopes (shown in Map 11) are unacceptable for further consideration for coal leasing.

Rationale: The breaks and buttes topography found in this coal deposit is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography in these areas also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting and other wildlife-related activities. In order to assure the continued existence of these values and to satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct high concentrations of steep slopes (30% or greater) due to problems with slope stability and mining economics.

Decision: Areas where buried channel aquifers occur (see Map 13) are unacceptable for further consideration for coal leasing.

Rationale: These buried channel aquifers are important water sources with high yields and very good quality. In most areas they are capable of being used as a water source for irrigation as well as domestic and livestock uses. The only source of replacement water with comparable quantity and quality for these areas is Lake Sakakawea. It would not be practical to replace this water source by a pipeline from the lake.

Decision: In the area of the Ray buried channel aquifer, full application of the resource trade-off screen cannot be made at this time (see Map 13). The areas are acceptable pending further study.

Rationale: Information currently being analyzed will better define the location of this aquifer and its properties, and will help in deciding whether it is reasonable to consider leasing/mining within the area. Only a small portion of this area contains federal coal. New information has come to light that may indicate more favorable mining possibilities in this area.

Decision: All federal coal beneath private surface is acceptable for further consideration for leasing pending further study of the cultural resource.

Rationale: Resource trade-offs based on cultural resource values will be considered in an MFP addendum scheduled for late 1984 if funding can be acquired for data acquisition. In response to National Historic Preservation Act requirements, the MFP must address the effect of leasing federal coal on cultural resource values irrespective of surface ownership. The MFP decision will be made after consultation with the State Historic Preservation Office and, if necessary, the Advisory Council on Historic Preservation.

III. Surface Owner Consultation

Decision: On the basis of significant surface owner opposition, exclude from further consideration the federal coal lands outlined in Map 14.

Rationale: Within this area approximately 7,820 acres of federal coal are associated with surface owner opposition. There are a total of 13,300 acres of federal coal in the area; thus, 59 percent of the federal coal is affected by opposition. If non-federal and federal coal are considered, approximately one-half of the coal in the outlined area is affected by opposition. There is no evidence of private coal leases or surface lease agreements (for mining) in the area.

See Appendix G for consultation statistics.

IV. Land Use Plan Consistency

Decision: Do not exclude any areas due to land use plans developed by other entities.

Rationale: The portion of this deposit covered by the Williston city plan is identified as being available for possible mineral development. No other land use plans that cover this area have been identified.

Decision: In addition to the 300-foot buffer around occupied dwellings under Unsuitability Criterion 3, an additional 200 feet beyond the buffer around occupied dwellings is acceptable for leasing with special stipulations, as under Criterion 3, according to state law and regulations. Lease stipulations would require a successful lessee to show that the requirements for an exception have been met prior to mine plan approval.

Rationale: This decision is consistent with state law, which prohibits mining within 500 feet of occupied dwellings, subject to possible exceptions. Exceptions may be applied at mine plan time.

TABLE V
APPLICATION OF COAL EXCLUSION SCREENS

WILLISTON DEPOSIT

	Acres	Thousands of Tons
Total Coal In Deposit	172,240	2,776,600
Total Federal Coal In Deposit	97,320	1,570,900
Total Federal Coal Excluded From Further Consideration	42,690	664,207
Total Federal Coal Acceptable for Further Consideration for Leasing Pending Further Study	44,462	764,093
Total Federal Coal Deferred From Leasing	10,168	142,600
(See Map 15 for illustration of the above.)		
Unsuitability Criteria		
Criterion 1	40	539
Criterion 19	18,160	319,725
Resource Trade-Offs		
Slope	31,390	484,606
Lake Buffer	23,357	330,680
Buried Channel	2,360	39,994
Oil and Gas	10,168	142,600
Surface Owner Consultation	13,174	145,857
Land Use Plan Consistency	0	0

Note: The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen. Estimates for Criterion 3 are not shown because application of exceptions could allow mining in large portions of the areas affected.

R101W R100W R99W R98W R97W R96W R95W

T156N

T155N

T154N

T153N

Ray

Epping

Wheelock

Spring Brook

Dauers Slough

Hoffland

Hoffland State Game Management Area

Lake Sakakawea

Missouri River

Tobacco Garden State Game Management Area

Williston

Williston

Twin Lakes

Red Mike Hill

Nesson Valley

Firehill

Lake Sakakawea

Williams County

McKenzie County

Williams County

MAP 11

WILLISTON COAL DEPOSIT

Slope and Oil and Gas Conflict

- High Concentration of Steep Slopes
- Oil and Gas Conflict Area
- Federal Coal Reservation

N

1 0 1 2

R101W R100W R99W R98W R97W R96W R95W

T156N

T155N

T154N

T153N

Ray

Wheelock

Epping

Spring Brook

Williston

Williston

Hoffland State Game Management Area

Tobacco Garden State Game Management Area

Lake Sakakawea

Missouri River

Williams County

McKenzie County

Mercer County

WILLISTON COAL DEPOSIT

Unsuitability Criteria 1 and 19

MAP 12

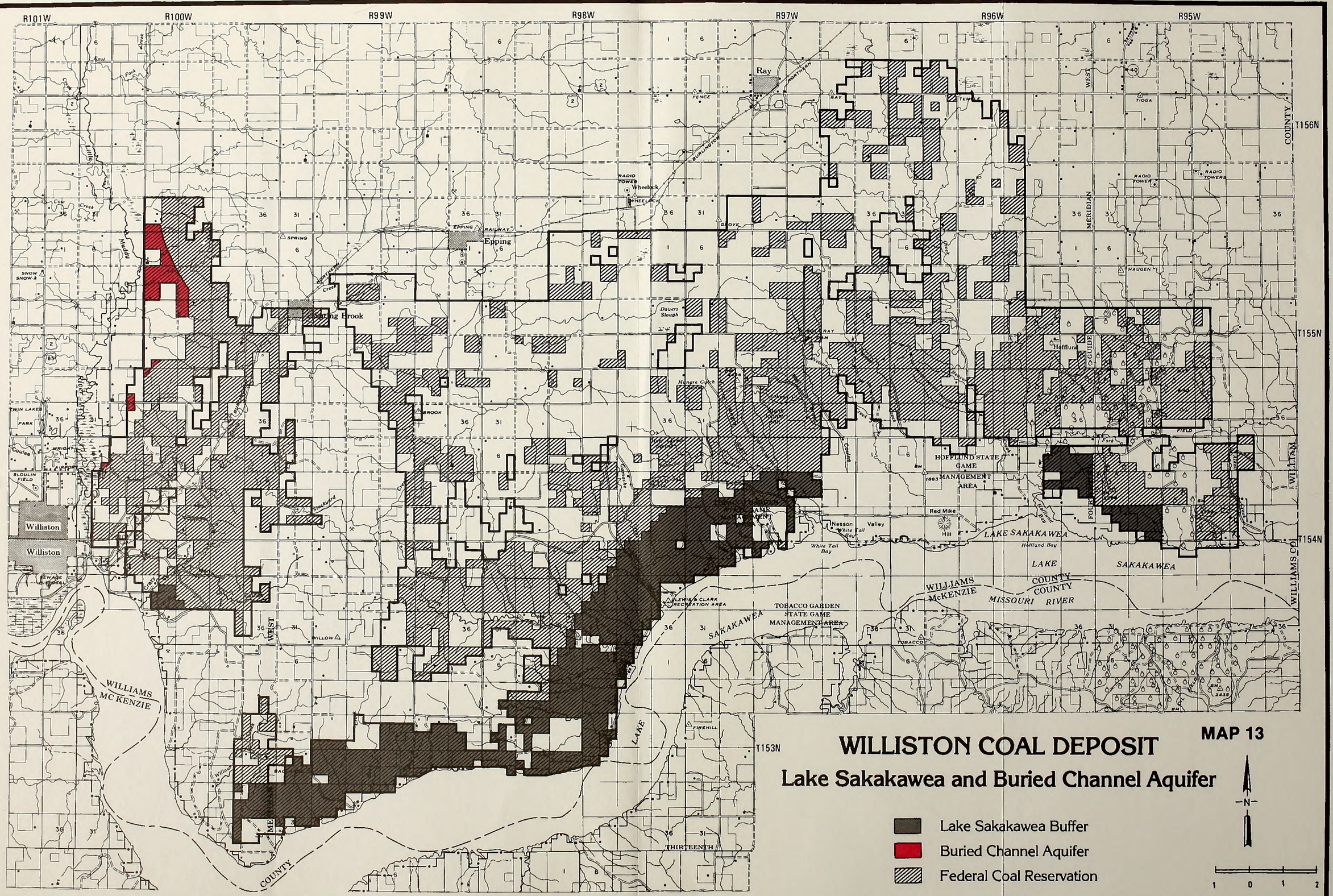
Criterion 19: Preliminary Alluvial Valley Floor

Criterion 1: Wildlife Refuge and Towns and Cities

Federal Coal Reservation

N

1 0 1 2



WILLISTON COAL DEPOSIT

Lake Sakakawea and Buried Channel Aquifer

MAP 13

WILLISTON COAL DEPOSIT

Surface Owner Consultation

MAP 14

- Federal Coal Leases
- Surface Owners Opposed to Mining
- Lands Covered by Private Lease Agreements for Coal Mining
- Federal Coal Reservation
- Areas with Significant Surface Owner Opposition

N

1 0 1 2

MAP 15

WILLISTON COAL DEPOSIT

Cumulative Effect of Screens

Areas Excluded from Further Consideration for Coal Leasing

Coal Leasing Deferred

Federal Coal Reservation

N

1 0 1 2

Tobacco Garden Deposit

Decision: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Decisions

I. Unsuitability Criteria

General:

Decision: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 16, 17, 18, and 20.

Rationale: The Tobacco Garden Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: *Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings* (Lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks.)

Decision: These areas will be designated as suitable with special lease stipulations. The stipulations will require a successful lessee to show that the requirements for one of the exceptions to the criterion have been met prior to mine plan approval. If the requirements are not met, the areas will be unavailable for mining.

Rationale: Regulations require that these areas be designated unsuitable, but allow for future application of exceptions by proper authorities or individuals.

Note: In addition to the 300-foot buffer around occupied dwellings, an additional 200 feet is acceptable for leasing with special stipulations, as under Criterion 3, on the basis of consistency with North Dakota law. (See decision for land use plan consistency screen.)

Criterion 7: *Historic Lands and Sites*

Decision: Do not exclude any federal coal lands from further consideration for leasing based on Criterion 7.

Rationale: Effective January 6, 1984, Criterion 7 is changed to address only publicly owned historic and cultural resources over federal coal (*Federal Register*, December 7, 1983, pp. 54819-54820). There are no publicly owned places on federal lands within this deposit which are on the National Register of Historic Places. (A decision under the resource trade-off screen will be considered following collection of data adequate to address impacts to the cultural and historic resource. See resource trade-off screen.)

Criterion 11: *Bald and Golden Eagle Nests*

Decision: This criterion cannot be fully applied at this time. The areas are suitable pending collection of data required to fully apply the criterion or exceptions.

Rationale: As explained in the June 1983 recommendations document, inadequate data prevents the full application of this criterion. The criterion will be fully applied upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for completion in late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of the unsuitability assessment for this criterion.

Criterion 14: *Federal Lands Which Are High-Priority Habitat for Migratory Bird Species of High Federal Interest on a Regional or National Basis.*

Decision: Criterion 14 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of this criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of this unsuitability assessment.

Criterion 15: *Federal Lands Which Are Fish and Wildlife Habitat for Resident Species of High Interest to the State and Are Essential for Maintaining These Priority Wildlife Species.*

Decision: Criterion 15 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of the criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the North Dakota Game and Fish Department will be an integral part of the unsuitability assessment for this criterion.

Criterion 19: *Alluvial Valley Floors*

Decision: Alluvial valley floors (AVF) are unsuitable; however, since final delineation cannot be done until mining plan time, application of this criterion is deferred. Map 16 shows preliminary designations of AVF.

Rationale: Information is insufficient at this time to make final determinations on the AVF potentially associated with Tobacco Garden Creek. It has not yet been determined whether or not protection of these potential AVF is needed and to what extent. The maximum extent of unsuitability designation will not be more than that shown on Map 16.

II. Resource Trade-Offs

Decision: The area along the shoreline of Lake Sakakawea that is depicted in Map 16 is unacceptable for further consideration for coal leasing.

Rationale: Lake Sakakawea is the largest and best quality surface water body in the state and is also the most highly developed recreational resource. A buffer is necessary to protect the quality of the edgewaters of the lake and also to ensure the quality of recreational experiences.

Decision: The areas with high concentrations of steep slopes (shown in Map 17) are unacceptable for further consideration for coal leasing.

Rationale: The breaks and buttes topography found in this coal deposit is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography in these areas also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting and other wildlife-related activities. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct high concentrations of steep slopes (30% or greater), due to problems with slope stability and mining economics.

Decision: Areas where buried channel aquifers occur (see Map 17) are unacceptable for further consideration for coal leasing.

Rationale: These buried channel aquifers are important water sources with high yields and very good quality. In most areas they can be used as a water source for irrigation as well as for domestic and livestock needs. The only source of replacement water with comparable quantity and quality for these areas is Lake Sakakawea. It would not be practical to replace this water source by a pipeline from the lake.

Decision: All federal coal beneath private surface is acceptable for further consideration for leasing pending further study of the cultural resource.

Rationale: Resource trade-offs based on cultural resource values will be considered in an MFP addendum scheduled for late 1984 if funding can be acquired for data acquisition. In response to National Historic Preservation Act requirements, the MFP must address the effect of leasing federal coal on cultural resource values irrespective of surface ownership. The MFP decision will be made after consultation with the State Historic Preservation Office and, if necessary, the Advisory Council on Historic Preservation.

III. Surface Owner Consultation

Decision: Exclude from further consideration for leasing those areas identified as having significant surface owner opposition (outlined on Map 18).

Rationale: Of the approximately 4,760 acres of federal coal within the area, 3,680 acres are associated with surface owner opposition, or 77 percent. Considering federal and non-federal coal together, the opposition affects 68 percent of the area. There are no private coal leases or surface lease agreements for mining within the area. Only 12 percent of the area is underlain with non-federal coal, so federal leasing decisions would control whether or not major coal development could occur.

See Appendix G for consultation statistics.

IV. Land Use Plan Consistency

Decision: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

Decision: In addition to the 300-foot buffer around occupied dwellings under Unsuitability Criterion 3, an additional 200 feet beyond the buffer around occupied dwellings is acceptable for leasing with special stipulations, as under Criterion 3, according to state law and regulations. Lease stipulations would require a successful lessee to show that the requirements for an exception have been met prior to mine plan approval.

Rationale: This decision is consistent with state law, which prohibits mining within 500 feet of occupied dwellings, subject to possible exceptions. Exceptions may be applied at mine plan time.

TABLE VI
APPLICATION OF COAL EXCLUSION SCREENS

TOBACCO GARDEN DEPOSIT

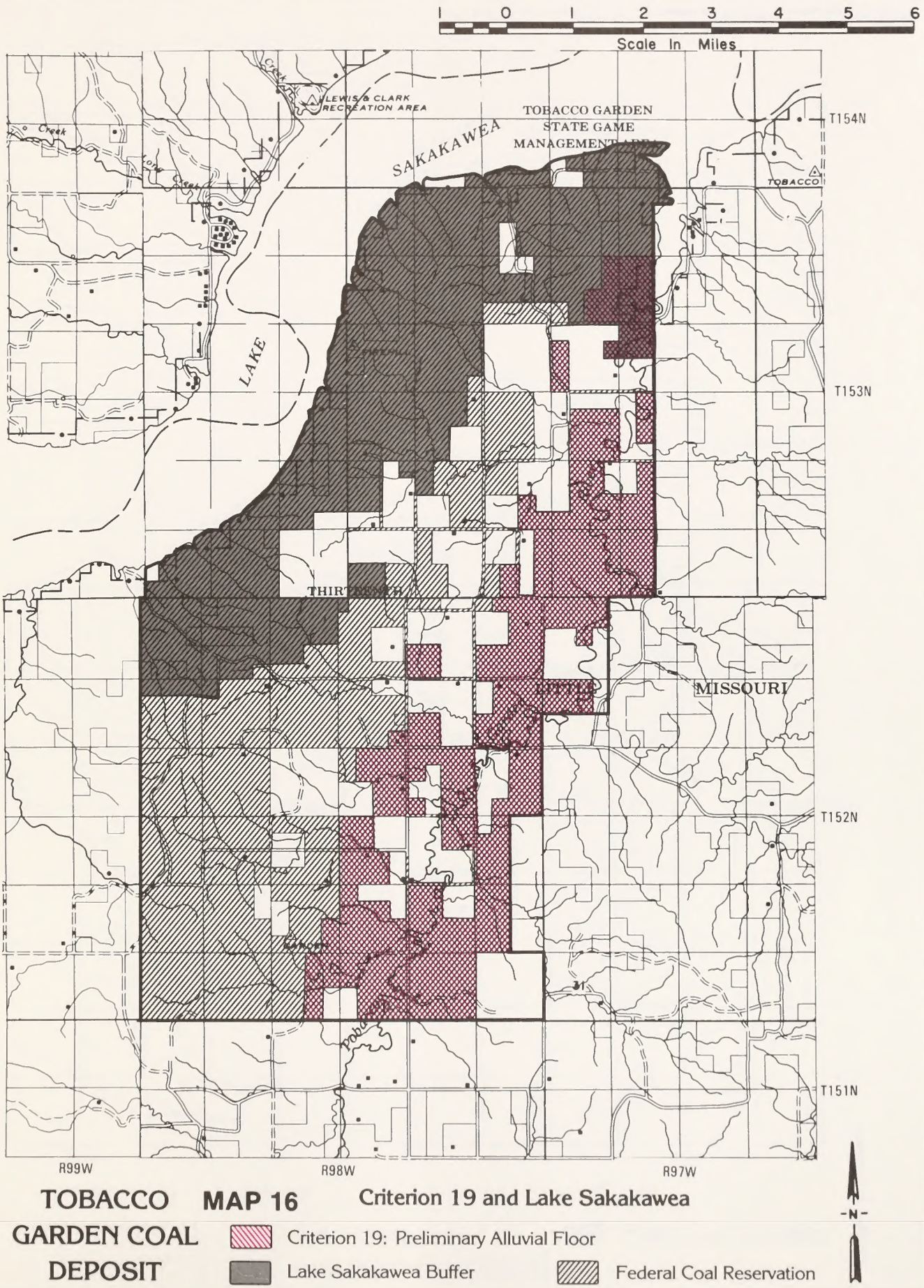
	Acres	Thousands of Tons
Total Coal In Deposit	43,440	369,880
Total Federal Coal In Deposit	32,920	280,300
Total Federal Coal Excluded From Further Consideration	21,940	187,950
Total Federal Coal Acceptable for Further Consideration for Leasing Pending Further Study	10,980	92,350

(See Map 19 for illustration of the above.)

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 19	10,240	87,808
Resource Trade-Offs		
Slope	5,860	50,249
Lake Buffer	12,230	104,872
Buried Channel	6,440	55,223
Surface Owner Consultation	4,760	40,817
Land Use Plan Consistency	0	0

Note: The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen. Estimates for Criterion 3 are not shown because application of exceptions could allow mining in large portions of the areas affected.

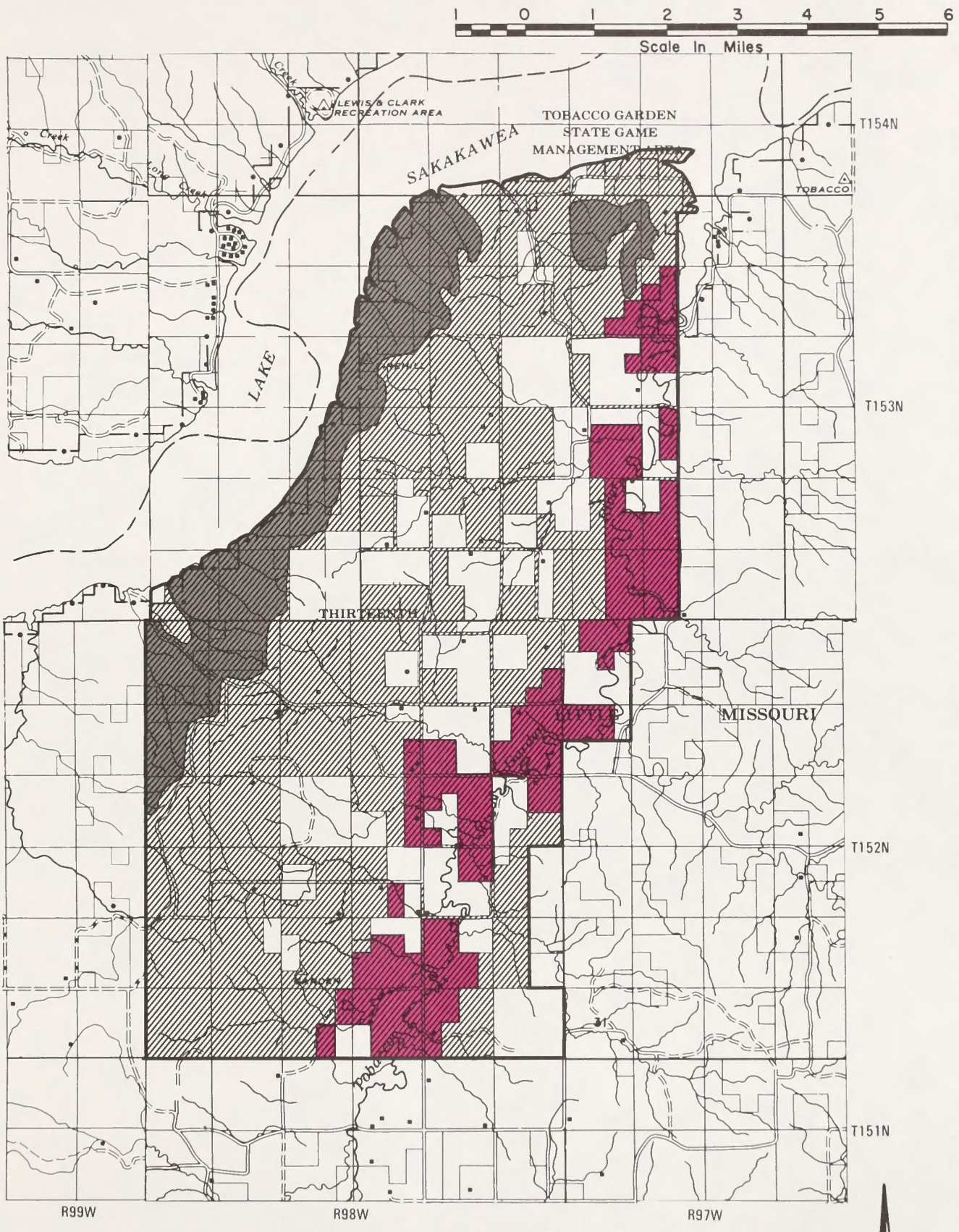


TOBACCO GARDEN COAL DEPOSIT **MAP 16** Criterion 19 and Lake Sakakawea

Criterion 19: Preliminary Alluvial Floor

Lake Sakakawea Buffer

Federal Coal Reservation

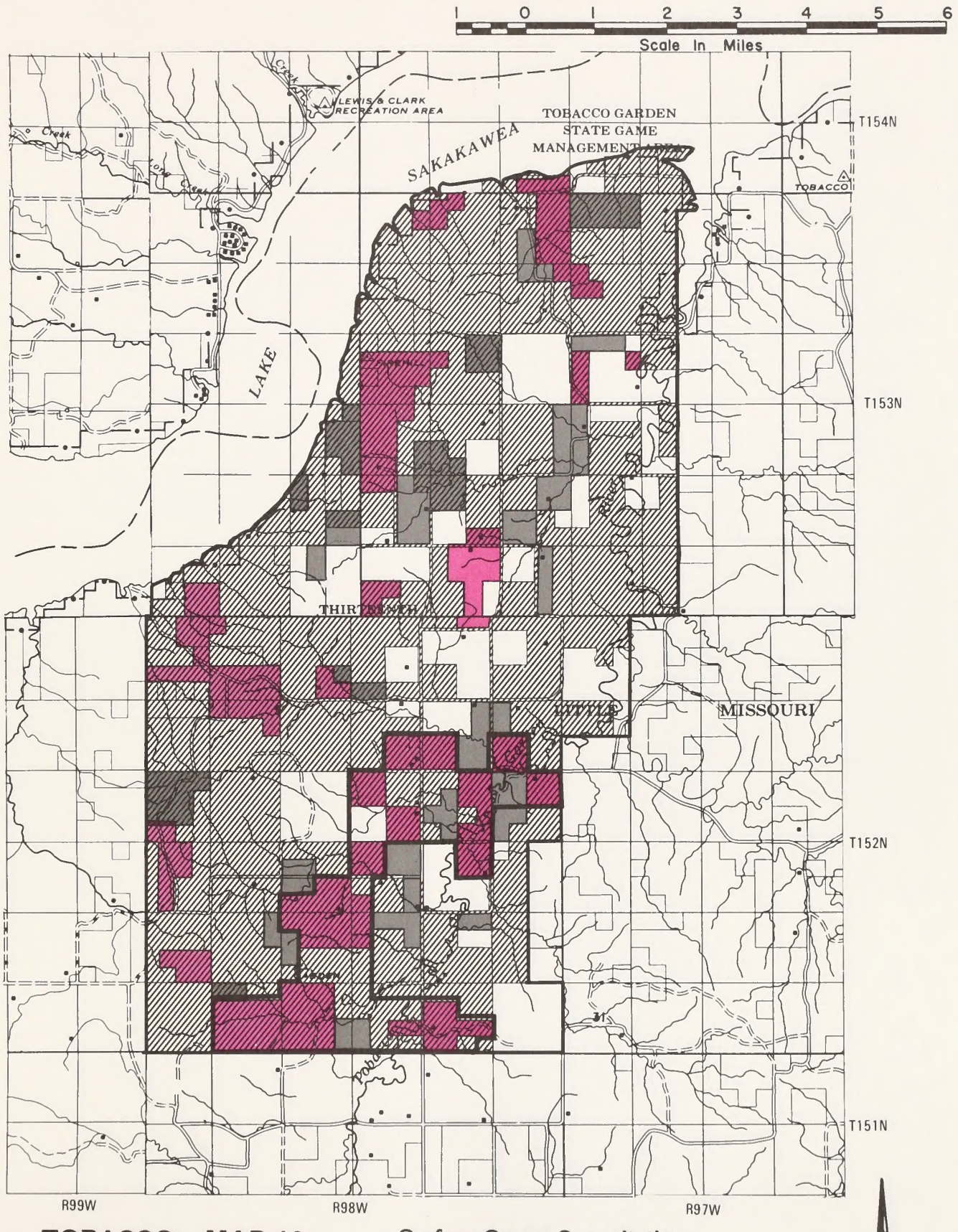


TOBACCO GARDEN COAL DEPOSIT **MAP 17** Aquifer and Steep Slopes

Buried Channel Aquifer

Federal Coal Reservation

High Concentration of Steep Slopes

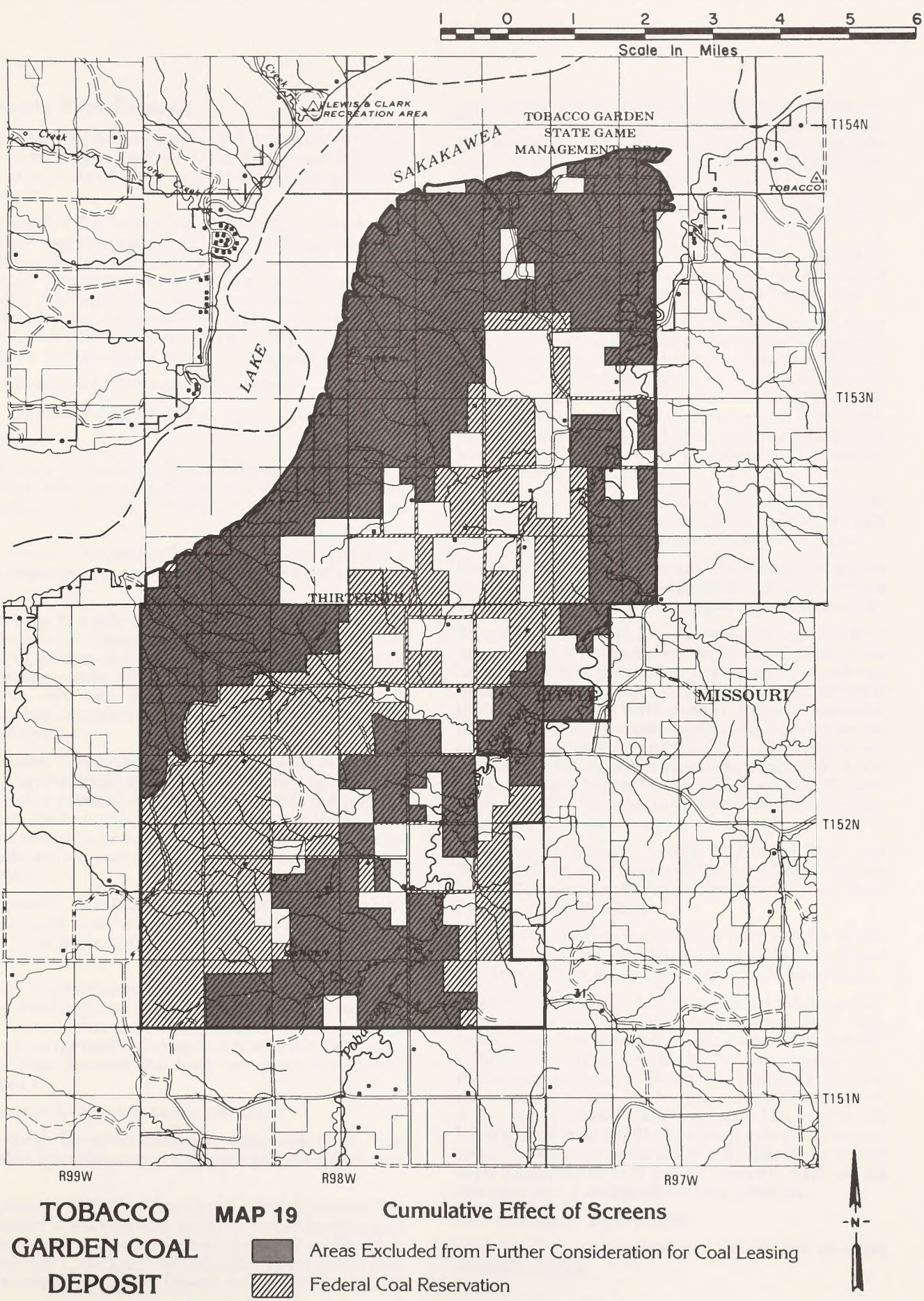


TOBACCO GARDEN COAL DEPOSIT

MAP 18

Surface Owner Consultation

- Surface Owners Opposed to Mining
- Lands Covered by Private Lease Agreements for Coal Mining
- Areas with Significant Surface Owner Opposition
- Federal Coal Reservation



TOBACCO GARDEN COAL DEPOSIT

MAP 19

Cumulative Effect of Screens

Areas Excluded from Further Consideration for Coal Leasing

Federal Coal Reservation

Bennie Peer Deposit

Decision: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Decisions

I. Unsuitability Criteria

General:

Decision: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 11, 13, 16, 17, 18, 19, and 20.

Rationale: The Bennie Peer Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: *Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings* (Lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks.)

Decision: These areas will be designated as suitable with special lease stipulations. The stipulations will require a successful lessee to show that the requirements for one of the exceptions to the criterion have been met prior to mine plan approval. If the requirements are not met, the areas will be unavailable for mining.

Rationale: Regulations require that these areas be designated unsuitable, but allow for future application of exceptions by proper authorities or individuals.

Note: In addition to the 300-foot buffer around occupied dwellings, an additional 200 feet is acceptable for leasing with special stipulations, as under Criterion 3, on the basis of consistency with North Dakota law. (See decision for land use plan consistency screen.)

Criterion 7: *Historic Lands and Sites*

Decision: Do not exclude any federal coal lands from further consideration for leasing based on Criterion 7.

Rationale: Effective January 6, 1984, Criterion 7 is changed to address only publicly owned historic and cultural resources over federal coal (*Federal Register*, December 7, 1983, pp. 54819-54820). There are no publicly owned places on federal lands within this deposit which are on the National Register of Historic Places. (A decision under the resource trade-off screen will be considered following collection of data adequate to address impacts to the cultural and historic resource. See resource trade-off screen.)

Criterion 12: *Bald and Golden Eagle Winter Roost and Concentration Areas*

Decision: This criterion cannot be fully applied at this time. The areas are suitable pending collection of data required to apply the criterion or exceptions.

Rationale: As explained in the recommendations document, inadequate data prevents the full application of this criterion. The criterion will be fully applied upon completion of data acquisition and analysis. The results will be published in an MFP addendum, scheduled for completion in late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of the unsuitability assessment for this criterion.

Criterion 14: *Federal Lands Which Are High-Priority Habitat for Migratory Bird Species of High Federal Interest on a Regional or National Basis.*

Decision: Criterion 14 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of this criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the U.S. Fish and Wildlife Service will be an integral part of this unsuitability assessment.

Criterion 15: *Federal Lands Which Are Fish and Wildlife Habitat for Resident Species of High Interest to the State and Are Essential for Maintaining These Priority Wildlife Species.*

Decision: Criterion 15 cannot be fully applied at this time. All areas are suitable pending collection of data required to fully apply the criterion and exceptions.

Rationale: The BLM has reevaluated existing data upon which the planning recommendations were based. This has resulted in our decision to redesignate these areas as suitable for further consideration for leasing, pending further study. Full application of the criterion will be made upon completion of necessary data acquisition and analysis. The results will be published in an MFP addendum, scheduled for late 1984. Consultation with the North Dakota Game and Fish Department will be an integral part of the unsuitability assessment for this criterion.

II. Resource Trade-Offs

Decision: Do not exclude any areas due to other resource values.

Rationale: No other resource values significant enough to preclude leasing were identified.

Decision: All federal coal beneath private surface is acceptable for further consideration for leasing pending further study of the cultural resource.

Rationale: Resource trade-offs based on cultural resource values will be considered in an MFP addendum scheduled for late 1984 if funding can be acquired for data acquisition. In response to National Historic Preservation Act requirements, the MFP must address the effect of leasing federal coal on cultural resource values irrespective of surface ownership. The MFP decision will be made after consultation with the State Historic Preservation Office and, if necessary, the Advisory Council on Historic Preservation.

III. Surface Owner Consultation

Decision: Exclude from further consideration for leasing those areas identified as having significant surface owner opposition (outlined on Map 20).

Rationale: Of the approximately 11,140 acres of federal coal within the area, 4,840 acres are associated with surface owner opposition, or 43 percent. Considering federal and non-federal coal together, the opposition affects 34 percent of the area. There are no private coal leases or surface lease agreements for mining within the area. Only 22 percent of the area is underlain with nonfederal coal, so federal leasing decisions would control whether or not major coal development occurs in the area. On adjacent lands south of the area, which are under the planning jurisdiction of the Forest Service, surface owner opposition has been recorded in a block of approximately 2,500 acres.

See Appendix G for consultation statistics.

IV. Land Use Plan Consistency

Decision: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

Decision: In addition to the 300-foot buffer around occupied dwellings under Unsuitability Criterion 3, an additional 200 feet beyond the buffer around occupied dwellings is acceptable for leasing with special stipulations, as under Criterion 3, according to state law and regulations. Lease stipulations would require a successful lessee to show that the requirements for an exception have been met prior to mine plan approval.

Rationale: This decision is consistent with state law, which prohibits mining within 500 feet of occupied dwellings, subject to possible exceptions. Exceptions may be applied at mine plan time.

TABLE VII
APPLICATION OF COAL EXCLUSION SCREENS

BENNIE PEER DEPOSIT

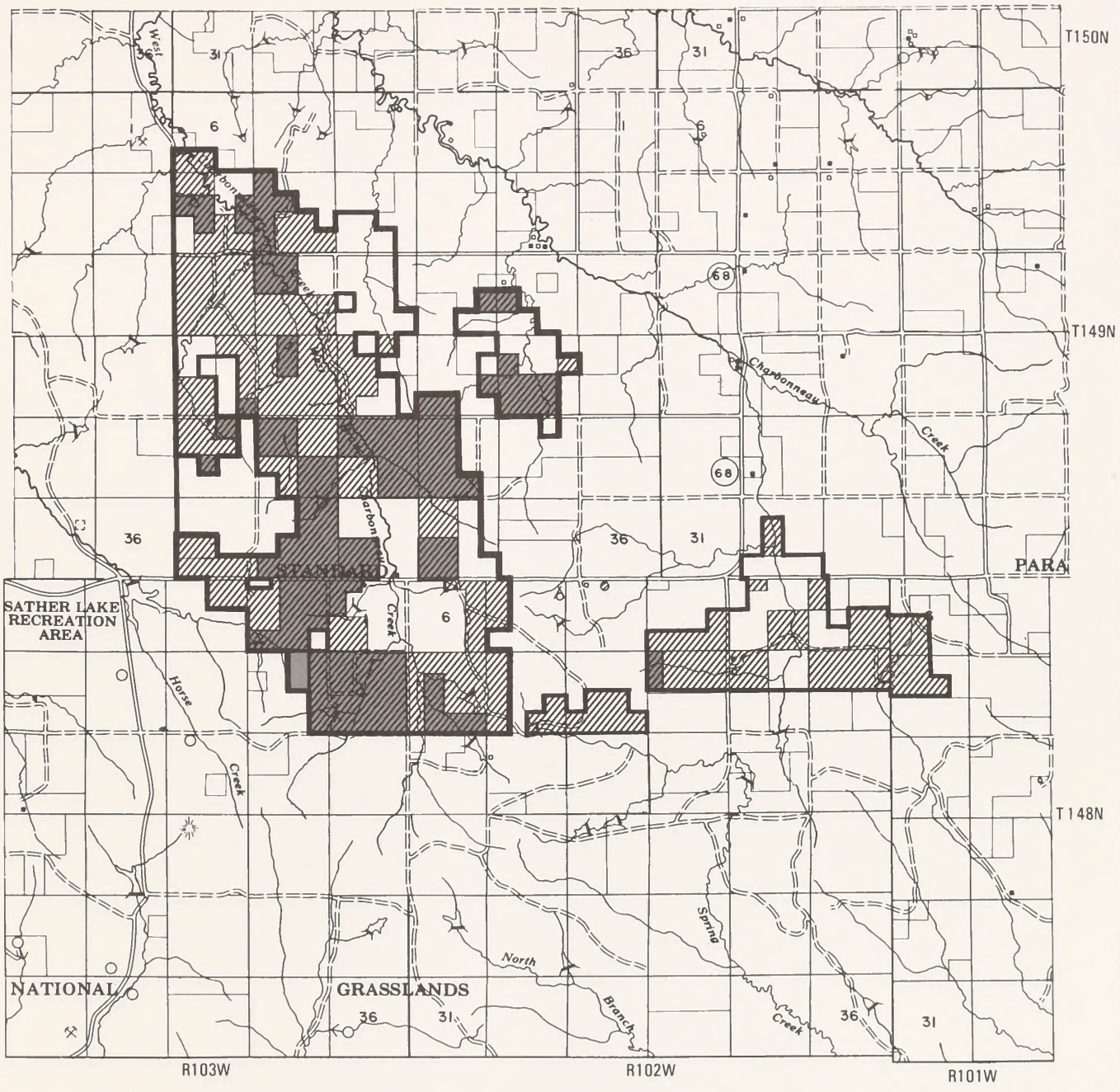
	Acres	Thousands of Tons
Total Coal In Deposit	15,640	183,880
Total Federal Coal In Deposit	11,600	139,270
Total Federal Coal Excluded From Further Consideration	9,563	107,303
Total Federal Coal Acceptable for Further Consideration for Leasing Pending Further Study	2,037	31,967

(See Map 21 for illustration of the above.)

EXCLUSIONS BY SCREEN

Unsuitability Criteria	0	0
Resource Trade-Offs	0	0
Surface Owner Consultation	9,563	107,303
Land Use Plan Consistency	0	0

Note: Estimates for Criterion 3 are not shown because application of exceptions could allow mining in large portions of the areas affected.



BENNIE PEER COAL DEPOSIT

Surface Owner Consultation

Federal Coal Reservation

Surface Owners Opposed to Mining

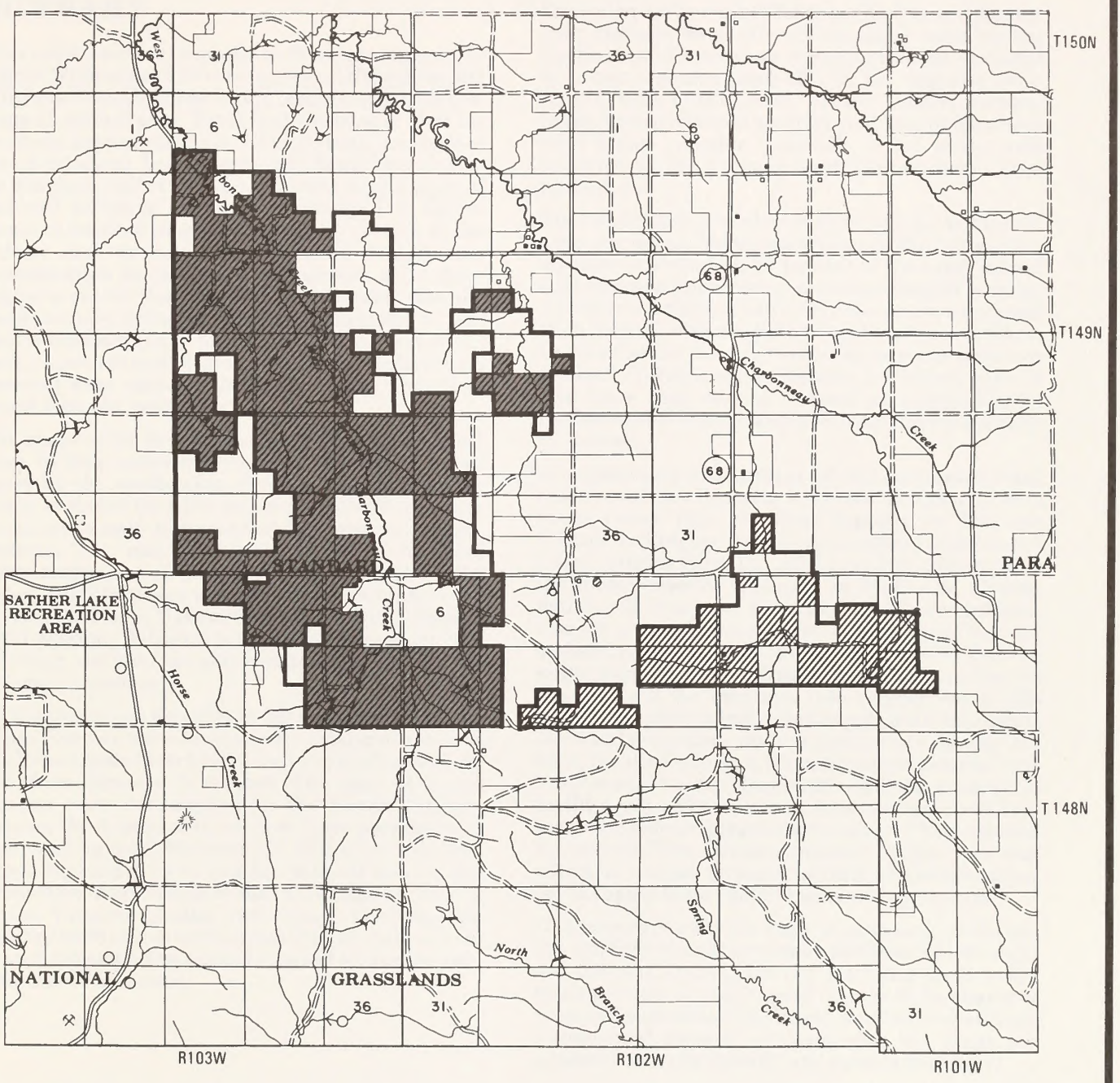
Areas with Significant Surface Owner Opposition

-N-

1 2 3 4

Scale In Miles

MAP 20



BENNIE PEER COAL DEPOSIT

Cumulative Effects of Screens

Areas Excluded from Further Consideration for Coal Leasing

Federal Coal Reservation

-N-

1 2 3 4

Scale In Miles

MAP 21

SUMMARY

Three of the six coal deposits in the planning area lie within Williams and Divide counties. Of the three, the Williston Deposit contains the largest estimated tonnage of federal coal. Total coal reserves in that deposit are approximately 2.78 billion tons, over half of which is federal. In the Hanks and Sand Creek deposits less than half of the coal is federal. Application of the coal exclusion screens in Williams and Divide counties resulted in approximately 27 percent of the federal coal tonnage being excluded from further consideration for leasing. A comparison of the three deposits shows that the Williston Deposit was the most severely impacted, with approximately 42 percent of the federal coal tonnage excluded. By comparison, 11 percent and 13 percent of the total federal coal reserves were excluded from the Hanks and Sand Creek deposits, respectively.

The areas in the three deposits which were excluded from further consideration were affected in many cases by the application of more than one screen. Areas excluded by other resource trade-offs in many cases overlapped with unsuitability criteria determinations. The major resource trade-offs involved were: slope, buried channel aquifers, lake buffer zones, wildlife refuge watersheds, and a buffer zone around the North Dakota State Agricultural Experiment Station, Williston branch. Surface owner consultation and land use plan consistency also resulted in some exclusions.

Of the three coal deposits in McKenzie County, the Keene Deposit is the largest, with total coal reserves of 2 billion tons. Over half of the total coal reserves in the three deposits is federal. The coal exclusion screens were not applied in the Keene Deposit, because the federal coal reserves there were deferred from leasing until development of the coal resource would no longer be in conflict with oil and/or gas production. Application of the coal exclusion screens in the Tobacco Garden and Bennie Peer deposits resulted in 33 percent of the total federal coal reserves of each deposit being carried forward for further consideration for leasing.

Exclusion areas in the Tobacco Garden and Bennie Peer deposits were affected in many cases by the application of more than one screen. Areas excluded by other resource trade-offs in the deposits overlapped with unsuitability criteria determinations. Slope, buried channel aquifers, and lake buffer zones were major resource trade-offs. Other areas were excluded on the basis of significant surface owner opposition.

The application of coal exclusions screens to the coal deposits in the McKenzie-Williams Planning Area resulted in excluding 22 percent of the total federal coal tonnage from further consideration for leasing. Another one-third of the total reserves was deferred from leasing at this time due to oil and gas conflicts. In these areas the coal exclusion screens were not applied. Overall, approximately 2.4 billion tons of coal have been carried forward as acceptable for further consideration. Table VIII displays the results by deposit.

A preliminary assessment of the estimated total reserves of the deposits after the exclusions were made shows that the three deposits in Williams County could support mining operations with reserve bases ranging from 125 million to 500 million tons. Estimated reserve tonnages in McKenzie County which will be carried forward for further consideration are not as extensive. After application of the coal screens, it appears that the Tobacco Garden Deposit might support a mine with a 125-million ton reserve base. To put the tonnages into perspective: a 125-million ton reserve base could supply a 500-megawatt electrical generating station, assuming a 40-year life span for the facility; a 250-million ton reserve base could support a 1000-megawatt electrical generation facility; and a 500-million ton reserve base could support a synfuels or gas generation plant. The portion of the Bennie Peer Deposit included in this plan and which is carried forward for further consideration could supply three "small business" operations.

It is impossible at this stage of planning to discuss the viability of coal conversion facilities which might use the coal. During activity planning preliminary leasing tracts are delineated (partly on the basis of potential conversion facilities), and the probable environmental impacts of developing the tracts are assessed on a site-specific and cumulative basis.

TABLE VIII
CUMULATIVE EFFECTS OF SCREENS

Coal Deposit	Total Federal Coal		Federal Coal Deferred from Leasing		Federal Coal Excluded Through Screens For Leasing		Federal Coal Acceptable for Further Consideration for Leasing	
	Acres	Thousand of Tons	Acres	Thousand of Tons	Acres	Thousand of Tons	Acres	Thousand of Tons
Keene	130,298	1,585,000	130,298	1,585,000	—	—	0	0
Hanks	48,100	726,400	0	0	18,240	270,400	29,860	456,000
Sand Creek	57,860	975,000	0	0	15,330	250,472	42,530	724,528
Williston	97,320	1,570,900	10,168	142,600	67,770	1,054,422	19,382	373,878
Tobacco Garden	32,920	280,300	0	0	26,300	225,523	6,620	54,777
Bennie Peer	11,600	139,270	0	0	9,959	111,666	1,641	27,604
Totals	378,098	5,276,870	140,466	1,727,600	137,599	1,912,483	100,033	1,636,787

Note: For a specific breakdown by individual screens, see Tables II, III, V, VI, and VII.

OIL AND GAS

Decision: Make available for exploration and leasing all of the lands in the planning area on which the oil and gas is federally owned. Stipulations will be developed for leases and development plans on a case-by-case basis.

Rationale: Large portions of the planning area have not been fully evaluated for oil and gas. With the critical need for energy resources, as many areas as possible must be made available, with appropriate consideration for other resource values. Impacts resulting from oil and gas development normally can be mitigated through lease and development plan stipulations.

MISCELLANEOUS MINERALS

In the planning area there is little federal mineral ownership other than coal and oil and gas. Mineral resources in this category include, but are not limited to uranium, geothermal energy, salt, potash, sodium sulfate, sand and gravel, scoria, stone, and clay. Overall, information regarding the extent, quality, and accessibility of these deposits cannot be obtained. District efforts will focus on development of a geology, energy, and minerals (GEM) inventory program to acquire this data.

The above-mentioned minerals and mineral materials are known to exist or are thought to exist in the planning area. Some of the minerals are important at the present time, and others will become increasingly important in the future when improved processing and mining methods will allow development of lower grade deposits. Industrial development will also increase the demand for mineral materials, which may be partially supplied from federally-controlled sources.

Decision A: Prepare a basic data file for the minerals other than coal and oil and gas in this planning area. This file is to be started in Fiscal Year 1984 and updated as needed.

Rationale: Little is known about these resources and interest in them could grow in the future. This file would supply the basic minerals data needed for a number of possible future actions. These include mineral leases, land sales or exchanges, and material sales.

Decision B: Federally controlled minerals other than coal and oil and gas must be made available for exploration and development upon request. Applications will be handled on a case-by-case basis with appropriate analysis to protect other resource values.

Rationale: Minerals are necessary for the continued growth, development, and maintenance of the Nation. Their availability must be assured where necessary, but not at the loss of more valuable resources.

CHAPTER 3
SCATTERED TRACTS

SCATTERED TRACTS

BACKGROUND

The lands on which the Bureau of Land Management administers both the surface and minerals estate (sometimes referred to as "surface" lands) make up a tiny portion of North Dakota. These lands were never in private ownership.

When North Dakota was being settled, there was not a master plan to ensure that every acre would go into private ownership. The homesteaders filed on what they wanted and needed, and a small amount of land remained in the public domain for a variety of reasons.

What can be said in general about BLM surface lands in North Dakota applies to the BLM tracts in the McKenzie-Williams Planning Area: they are mostly odds and ends, scattered widely, and it is unlikely that the general public is aware of their locations.

The BLM has been concerned with the need for land pattern adjustment for many years. Of the 68,000 acres of public land managed by BLM in North Dakota, some 46,000 acres exist in a scattered pattern of relatively small tracts, ranging from less than 40 acres to 160 acres. The McKenzie-Williams Planning Area has 57 separate parcels totalling 3,025.2 acres.

To make the management of both public and adjacent private lands more effective and efficient, it is necessary to adjust the scattered or fragmented pattern of BLM lands. Lands in this planning area have been reviewed and placed into one of three categories, using criteria found in *State Director Guidance for Resource Management in Montana and the Dakotas* (published in April 1983). These three categories are: disposal (sale, exchange or transfer); retention; and further study. Criteria for categorization of BLM lands are found in Appendix G.

The multiple-use decisions for BLM surface lands are grouped according to "resource programs," such as lands (realty), minerals, and range. Draft decisions or recommendations were presented to the public in July 1983. Formal comments received, along with proposals for tract sales or exchange, are contained in Chapter 4, "Public Comments and Responses."

Our analysis of the comments and proposals received shows a broad base of support for disposal of scattered tracts. Emphasis will be placed on land exchanges; however, sales will be used where appropriate, as determined by the District Manager. Land exchanges will enable the BLM to dispose of isolated tracts and to block up or consolidate around other federal lands of higher public value. Management of proposed consolidation areas will support the multiple-use goals of the Bureau. Opportunities for joint management with other federal or state agencies will be considered on a case-by-case basis.

Proposed consolidation efforts may focus on a number of tracts identified for retention. A number of tracts designated for retention are located around major tributaries and Lake Sakakawea. Other tracts located in upland areas contain significant public values such as woody draws or wetlands. The retention tracts are identified on Map 22.

A number of draft resource program recommendations in the July, 1983 publication have been changed. These changes are reflected in the final multiple-use decisions. The comments received, together with the District responses, provide a framework against which the decision changes can be evaluated.

LANDS

The public land pattern in the planning area is fragmented, with most tracts ranging in size from less than 40 to 160 acres. The BLM is authorized to enter into land base adjustments through the Federal Land Policy and Management Act of 1976 and other public land laws. Lands identified for retention have resource values that warrant retention in public ownership and can serve as core areas for acquisition of land through exchange mechanisms, with the goal being to create manageable areas of sufficient size for recreational, scientific, and aesthetic purposes, as well as to help maintain ecosystem components. It is in the best interest of the public to dispose of lands which have low resource values, are difficult to manage due to small size and scattered nature, or which could attain a higher and better use in the private sector or through management by another public agency. Disposal of unneeded or unmanageable lands would allow BLM to focus management efforts on areas that will best benefit the public and resource values. By exchanging certain lands for lands which have high resource values and which complement retained lands, the public will be assured the maximum benefits from public lands.

Decision A: Dispose of the lands described in Table IX (see also Map 22). Emphasis will be given to using disposal lands in exchanges. Even BLM lands quite far from acquisition core areas can be used in exchanges, if the "pooling" method is employed. Maintain the option of reclassifying or changing management on these lands based on new data or policy changes. Land identified for transfer to the Forest Service will be made available for disposal if the transfer is not accomplished. Lands identified for transfer to the Bureau of Reclamation or Fish and Wildlife Service will be retained if the transfer is not accomplished. Pending disposal, the lands will be managed for multiple use at a low intensity/custodial level.

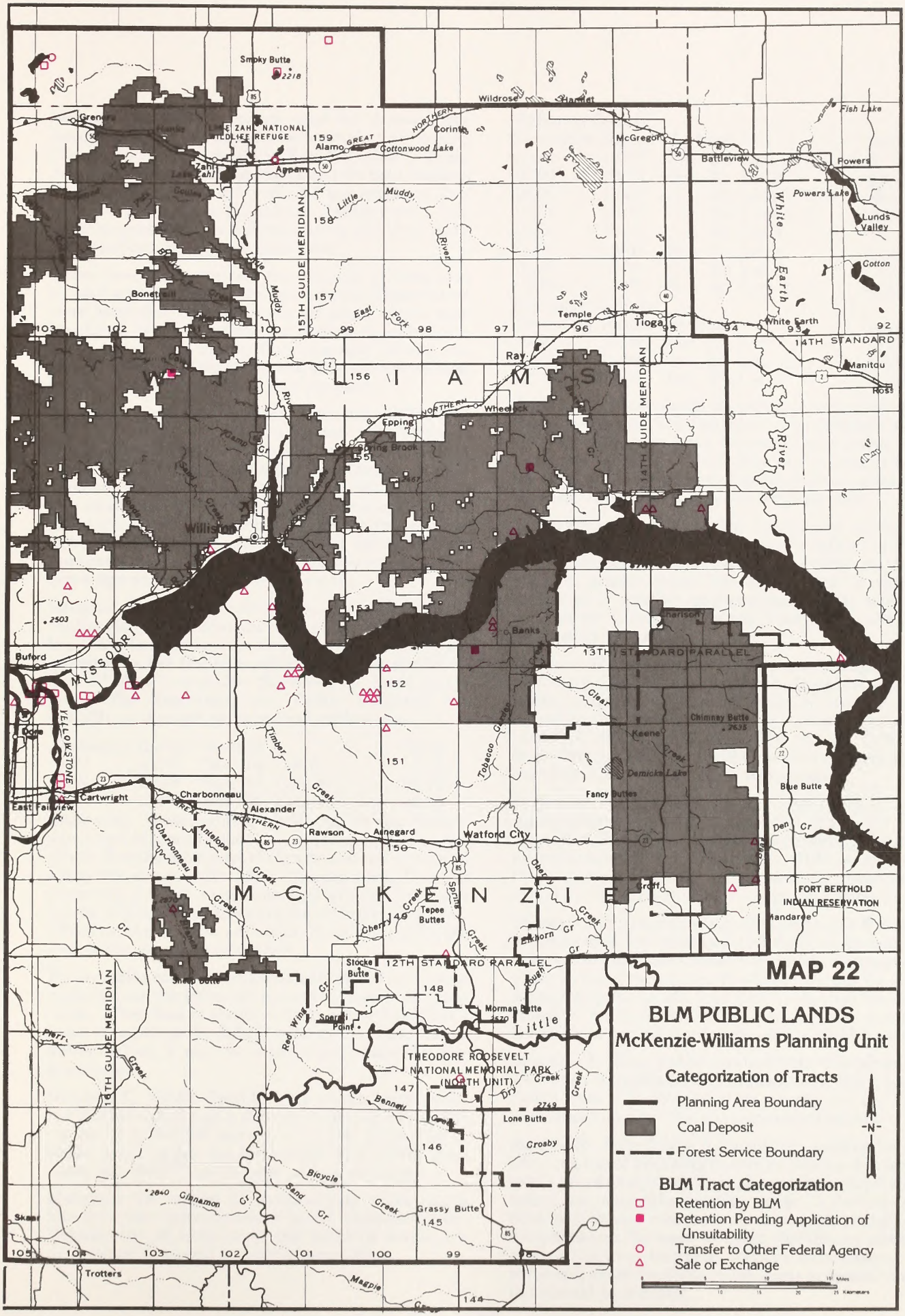
Rationale: Tracts categorized for disposal by sale or exchange have limited potential for multiple-use management. Management options on these parcels are limited to low intensity/custodial administration. Cost-effective management beyond this level is clearly not feasible. The tract pattern is scattered, with sizes ranging from 40 to 160 acres. Wildlife and livestock grazing are the only documented uses. Potential for management by other public agencies is limited. Wildlife habitat values are moderate.

TABLE IX
Categorization of Disposal Lands

Disposal Category	Township	Range	Section		Acres
			Williams County		
S/E	154N	95W(OGC)	Sec. 7:	Lots, 2,3,4	110.61
S/E	154N	96W(OGC)	Sec. 12:	SE¼NE¼, NE¼SE¼	80.00
S/E	154N	95W(OGC)	Sec. 10:	N½SE¼	80.00
S/E	154N	97W(C)	Sec. 17:	SW¼NE¼	40.00
S/E	153N	99W(C)	Sec. 28:	NW¼NE¼	40.00
S/E	153N	99W(C)	Sec. 28:	NW¼NW¼	40.00
S/E	154N	100W(C)	Sec. 33:	SE¼SE¼	40.00
S/E	154N	101W	Sec. 29:	SW¼SE¼ (that portion north of railroad	10.00
S/E	153N	103W	Sec. 9:	NW¼NE¼	40.00
S/E	153N	103W	Sec. 26:	SW¼NW¼	40.00
S/E	153N	103W	Sec. 26:	NE¼SW¼	40.00
S/E	153N	103W	Sec. 27:	NE¼SW¼	40.00
S/E	153N	104W	Sec. 10:	Lot 1	29.91
BR/FWS	159N	100W	Sec. 22:	SE¼NE¼,	40.00
				SE¼NW¼,	40.00
				S½SW¼,	80.00
				N½SE¼,	80.00
				SW¼SE¼,	40.00
				NE¼SW¼	40.00
			Divide County		
BR/FWS	160N	103W	Sec. 15:	W½NW¼, NW¼SW¼	120.00
			McKenzie County		
S/E	152N	93W	Sec. 8:	Lot 4	14.95
S/E	149N	95W(OGC)	Sec. 1:	Lot 1	48.10
S/E	149N	95W(OGC)	Sec. 10:	SE¼SE¼	40.00
S/E	150N	95W(OGC)	Sec. 24:	Lot 4	46.99
S/E	150N	95W(OGC)	Sec. 25:	Lot 1	47.11
S/E	149N	99W	Sec. 35:	NE¼NE¼	40.00
S/E	151N	99W	Sec. 6:	Lot 5	38.25
S/E	152N	99W	Sec. 7:	Lot 3	37.60
S/E	152N	99W	Sec. 24:	NW¼NE¼	40.00
S/E	152N	101W	Sec. 12:	NW¼SE¼	40.00
S/E	152N	101W	Sec. 14:	SW¼SW¼	40.00
S/E	152N	101W	Sec. 14:	SE¼SE¼	40.00
S/E	152N	101W	Sec. 22:	SE¼NW¼	40.00
S/E	153N	101W	Sec. 10:	SE¼SE¼	40.00
S/E	152N	102W	Sec. 21:	Lot 5	1.01
S/E	152N	103W	Sec. 24:	SE¼SW¼	40.00
S/E	151N	104W	Sec. 35:	SW¼NE¼, that portion north of the railroad	10.00
S/E	152N	104W	Sec. 30:	Lot 1	34.13
S/E	153N	98W(C)	Sec. 24:	SW¼SE¼	40.00
S/E	153N	98W(C)	Sec. 25:	W½NE¼	80.00
S/E	152N	100W	Sec. 24:	SE¼NW¼	40.00
S/E	152N	100W	Sec. 24:	SW¼SW¼	40.00
S/E	152N	100W	Sec. 25:	W½NW¼	80.00
S/E	152N	100W	Sec. 24:	SE¼SE¼	40.00
S/E	153N	100W	Sec. 18:	NE¼SW¼, Lot 3	79.85
S/E	152N	100W	Sec. 26:	NE¼NW¼	40.00
S/E	149N	102W	Sec. 17:	NE¼SE¼	40.00
FS	147N	99W	Sec. 22:	NW¼NW¼	40.00

Categories:

S/E —Sale or Exchange
BR/FWS —Transfer to Bureau of Reclamation or Fish and Wildlife Service
FS —Transfer to Forest Service
(OGC) —In an area of extensive oil and gas development within a mineable coal deposit
(C) —Within a mineable coal deposit


MAP 22
BLM PUBLIC LANDS
McKenzie-Williams Planning Unit
Categorization of Tracts
Planning Area Boundary
Coal Deposit
Forest Service Boundary
BLM Tract Categorization
Retention by BLM
Retention Pending Application of Unsuitability
Transfer to Other Federal Agency
Sale or Exchange
WILLIAMS
MCKENZIE
Williston
Watford City
Alexander
Charbonneau
Cartwright
Buford
Ray
Epping
Wheelock
Tioga
Temple
Banks
Harrison
Keene
Chimney Butte
Demicks Lake
Fancy Buttes
Blue Butte
Tepee Buttes
Stocke Butte
Mormon Butte
Lone Butte
Grassy Butte
Trotters
Rawson
Arnegard
Powers Lake
Battleview
McGregor
Wildrose
Alamo
Cottonwood Lake
Corinth
Zahl
Appam
Bonetrail
Smoky Butte
Fish Lake
Lunds Valley
Cotton
White Earth
Manitou
Ross
Mandaree
FORT BERTHOLD INDIAN RESERVATION
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK (NORTH UNIT)
15TH GUIDE MERIDIAN
14TH GUIDE MERIDIAN
13TH STANDARD PARALLEL
12TH STANDARD PARALLEL
14TH STANDARD
MISSOURI
YELLOWSTONE
Little Muddy River
East Fork
White Earth River
Timber Creek
Tobacco Garden Creek
Clear Creek
Spring Brook
Antelope Creek
Cherry Creek
Sperati Point
Red Wing Creek
Bennett Creek
Dry Creek
Crosby Creek
Bicycle Creek
Sand Creek
Cinnamon Cr
Pierre Creek
Elkhorn Cr
Sugar Cr
Den Cr
Magpie Creek
Skaar
Sheep Butte
Gross
Oberg
Sprole
Kisamo Cr
Sand Creek
Lone Tree Creek
Charbonneau Creek
Timber Creek
Big Gulch
Gulch
Hamlet
Corinth

Several tracts (OGC) categorized for disposal are located in mineable coal deposits which were totally (Keene Deposit) or partially (East Williston Deposit) dropped from further consideration for coal leasing. This was due to extensive oil and gas conflicts. Disposal of these tracts should not interfere with coal development, since no federal leasing will occur until the petroleum resource is exhausted.

Other tracts categorized for disposal (c) are also located within a mineable coal deposit. These tracts were located in resource trade-off areas which were identified as unacceptable for further consideration for leasing. Here again, their disposal should not interfere with coal development, since no federal coal leasing will occur for the life of the plan.

Transfer to Other Federal Agencies (BR/FWS) (FS): The tracts (located in Divide and Williams counties) are associated with wetlands and have been identified for further evaluation for mitigation for the Garrison Diversion Project. Use of BLM lands would be a savings to the taxpayer, since there would be no acquisition costs. If these lands, upon further evaluation, are not appropriate or needed for mitigation purposes, they will be retained and managed to preserve and enhance the wetland values.

Decision B: Retain the following scattered tracts in McKenzie County. Maintain the option of reclassifying these lands based on new information or policy changes by the Department of Interior or the BLM. The BLM will consider disposing of these tracts under The Recreation and Public Purposes Act (R&PP), or through sales or land exchanges.

Township	Range	Section	Acres
152N	103W	Sec. 14: Lot 5	3.75
152N	103W	Sec. 13: Lots 6, 7	56.10
151N	104W	Sec. 26: Lots 1, 4	40.70

Rationale: These lands are adjacent to the Yellowstone and Missouri rivers. Access is provided by the rivers. For the most part the tracts consist of upland along the rivers, with little riparian area. There is presently limited recreation opportunity on these tracts. While management of these tracts is not cost-effective, there is the potential for future public use and public access development.

Preservation of wildlife habitat values and recreation potential are the primary reasons for retaining these lands. After close evaluation if it is determined that a lease or patent under R&PP will preserve or enhance public values, it may be beneficial to allow the proposed use.

Decision C: Retain the following public lands, pending further study and a determination of ownership status by cadastral survey. Consider disposing of these tracts under the Recreation and Public Purposes Act (R&PP), or through sale or exchange.

Maintain the option of reclassifying these lands based on new information or policy changes by the Department of Interior or the BLM (if tracts are determined to be still in public ownership).

Williams County

Township	Range	Section	Acres
152N	103W	Sec. 20: Lots 1, 3	51.00
152N	103W	Sec. 21: Lot 5	22.00
152N	104W	Sec. 14: Lots 1, 2, 3	88.20
152N	104W	Sec. 15: Lots 1, 2	30.85
152N	104W	Sec. 20: Lot 4	8.10
152N	104W	Sec. 21: Lot 4	11.00
152N	104W	Sec. 23: Lot 1	3.31
152N	104W	Sec. 24: Lots 2, 3	46.05

McKenzie County

Township	Range	Section	Acres
152N	104W	Sec. 21: Lot 7	17.50
152N	104W	Sec. 22: Lots 3, 4	16.60
152N	104W	Sec. 27: Lot 3	1.63

Rationale: These lands lie within the floodplain of the Missouri and Yellowstone rivers. Changes in the river channel may have removed these tracts from public ownership. The majority of the land in these areas is on the river floodplain, and there appears to be unsurveyed accreted land along the river.

Preservation of the habitat values and recreation potential are the primary reasons for retaining these lands. After close evaluation if it is determined that a lease or patent under the R&PP Act or sale or exchange to another governmental entity will preserve or enhance public values, it may be beneficial to allow such a transfer.

Decision D: Attempt to acquire lands adjacent to existing public lands bordering the Missouri and Yellowstone rivers. Acquisition could be accomplished by gift to the United States or by exchange of lands identified for disposal. Selection criteria noted in State Director Guidance will be used in evaluating all exchange proposals or other transactions.

Rationale: Lands adjacent to rivers or lakes have high public values. These types of lands provide good recreational opportunities for the general public and provide excellent wildlife habitat. BLM lands along these rivers are small, and expanding these areas would greatly add to their management potential.

Disposing of public lands in McKenzie and Williams counties that are scattered and difficult to manage reduces the land base needed for public hunting and other forms of recreation. To offset this loss the BLM should acquire lands that have potential for cost-effective management. This can best be accomplished by acquiring lands adjacent to BLM tracts.

Decision E: Keep public lands within this planning area open to rights-of-way applications. Each application should be evaluated on its own merits. Take measures to protect the environmental values.

Rationale: Most future rights-of-way applications in this area would probably be energy related. As energy needs are of exceptionally high priority in the Nation today, we must take positive action to develop and transport energy resources. In most cases mitigating measures can be used to limit significant adverse environmental impacts. Where this cannot be achieved, some flexibility to relocate proposed facilities should be allowed.

The planning area contains oil and gas resources and coal deposits of high to moderate potential; however, it is impossible to determine at this time which specific public lands might be needed for roads or rights-of-way in support of coal or oil and gas development in the future.

Decision F: Resolve unauthorized use on public lands.

Rationale: Unauthorized use of public lands denies the public lawful revenues and can damage public land resources or be detrimental to authorized users. Elimination of all unauthorized use of public lands is a goal set forth in State Director Guidance and BLM Policy.

Decision G: Tracts listed below (see Map 22) are located within mineable coal deposits. These tracts cannot be categorized for disposal until the unsuitability criteria have been fully applied. Tracts found unsuitable for mining will be made available for disposal. Tracts located in areas identified acceptable for further consideration for leasing will be retained. Maintain the option of reclassifying these lands or changing management based on new data or policy changes.

Williams County

Township	Range	Section	Acres
156N	102W	Sec. 14: NE1/4SW1/4, NW1/4SE1/4	80.00
155N	97W	Sec. 21: SE1/4SE1/4	40.00

McKenzie County

Township	Range	Section	Acres
152N	98W	Sec. 5: Lots 10,11,12	120.00

Rationale: These tracts cannot be categorized for disposal at this time because of the deferred application of unsuitability criteria. Disposal of lands which are found to be unsuitable is consistent with the District's overall land base adjustment program. Overriding constraints of size and access problems generally preclude cost-effective management of the surface resource values present on these tracts. Disposal of these tracts in a land pooling program allows for a repositioning of federal lands with similar values into a land pattern which would facilitate the multiple-use goals of the District.

Retention of tracts in coal areas identified as acceptable for further consideration for leasing is consistent with Bureau policy.

Decision H: Retain the following lands for management of wetland values. Attempt to acquire, through exchange, adjacent areas to improve management capabilities.

Maintain the option to exchange these wetland areas, through land base adjustment, for other wetland areas of greater management potential or higher wetland values. This decision does not preclude the option of reclassifying these lands or changing management based on new data or policy changes.

			Acres
T160N	R100W	Sec. 22: SW1/4NE1/4, NW1/4SE1/4	80.00
T160N	R103W	Sec. 21: NE1/4NW1/4	40.00
T160N	R99W	Sec. 5: SW1/4SE1/4	40.00

Rationale: Wetlands are a high-priority resource for the Nation. Efficient management of wetland values ensures long-term benefits to society. These lands have not been identified as appropriate for mitigation for the Garrison Diversion Project and are, therefore, retained for BLM management. These lands will remain available for withdrawal applications by other federal agencies. Management by the BLM may include cooperative management with the state or another federal agency.

COAL

The objectives of the Interior Department's coal leasing program are to promote the timely and orderly development of publicly owned coal resources; to meet both long- and short-term needs for coal by leasing for reserves as well as to meet projected demand for production; to ensure that coal deposits are leased at their fair market value; to ensure that coal deposits are developed in consultation, cooperation, and coordination with other government agencies and Indian tribes; and to consider development of coal through a leasing system involving land use planning and an environmental assessment or environmental impact statement process.

The BLM is obligated to make the highest quality, most economical and environmentally acceptable coal available.

This can only be accomplished through a scheduled leasing program so industry, state and local governments, and the public can plan for future development.

Decision A: All mineral rights underlying BLM surface lands will be reserved by the federal government, except where there are no known mineral values or where the mineral reservation would preclude a more beneficial use of the land.

Rationale: Section 209 of the Federal Land Policy and Management Act requires that minerals be reserved in all conveyances of title except as stated in the decision.

Decision B: Defer leasing the federal coal resources of the following tracts. Make these tracts available for development in the future when the local oil fields are exhausted. These tracts have been categorized for disposal through sale. Federal coal resources in these tracts will not be carried forward for further consideration for leasing at this time.

McKenzie County

Township	Range	Section	Acres
149N	95W	Sec. 1: Lot 1	48.10
149N	95W	Sec. 10: SE1/4SE1/4	40.00
150N	95W	Sec. 24: Lot 4	46.99
150N	95W	Sec. 25: Lot 1	47.11

Williams County			
Township	Range	Section	Acres
154N	95W	Sec. 7: Lot 2, 3, 4	110.61
154N	95W	Sec. 10: N1/2SE1/4	80.00
154N	96W	Sec. 12: SE1/4NE1/4, NE1/4SE1/4	80.00

Decision C: Leave all the isolated tracts in this planning area open for potential coal exploration; however, applications will be assessed and evaluated on a case-by-case basis. These specific evaluations will determine whether or not to allow exploration to occur and what mitigation measures should be used as a condition for issuing the coal exploration license.

Rationale: All of the area has not been adequately explored to determine the exact nature and quality of the coal resources. This information is a vital part of overall energy planning in the area, and only through exploration programs can we obtain that information. The exploration usually can occur without causing significant adverse impacts to the environment.

Decision D: Issue licenses to mine coal to qualified applicants (under guidelines in 43 CFR 3400) within those areas designated acceptable for further consideration for leasing; however, each application must be assessed on its individual merits.

Rationale: These licenses are specifically authorized in Section 8 of the Mineral Leasing Act of 1920. They are strictly to provide for the local domestic need for coal. Under the provisions of the regulations individuals or associations of individuals are allowed to mine federal coal for their own use. A license to mine may be issued to a municipality solely for the nonprofit mining and disposal of coal to its own residents. The Bureau may also authorize a recognized and established relief agency of any state to take federally owned coal within the state and provide it to families on its rolls who require the coal for household use but are unable to pay for the coal. These licenses do not require the payment of rentals or royalities. Any mining activities authorized by a license are subject to the Surface Mining Control and Reclamation Act.

OIL AND GAS

Decision: Make available for exploration and leasing all of the lands in the planning area on which the oil and gas is federally owned. Stipulations will be developed for leases and development plans on a case-by-case basis.

Rationale: With the critical need for energy resources, as many areas as possible must be made available, but other resource values must be protected. Impacts resulting from oil and gas development normally can be mitigated. Lease and development plan stipulations will assure these mitigations.

MISCELLANEOUS MINERALS

In the planning area there is little federal mineral ownership other than coal and oil and gas. General resources in this category include, but are not limited to uranium, geothermal energy, salt, potash, sodium sulfate, sand and gravel, scoria, stone, and clay. Information regarding the extent, quality, and accessibility of these deposits cannot be obtained at this time. District efforts will focus on development of a geology, energy, and minerals (GEM) inventory program to acquire this data.

The above-mentioned minerals and mineral materials are known to exist or are thought to exist in the planning area. Some of these minerals are important at the present time, and others will become increasingly important in the future, when improved processing and mining methods will allow development of lower grade deposits. Industrial development will also increase the demand for mineral materials, which may be partially supplied from federally-controlled sources.

Decision A: Prepare a basic data file for minerals other than coal and oil and gas for the scattered tracts in this planning area. This file is to be started in Fiscal Year 1984 and updated as needed.

Rationale: Little is known about these resources and little interest is being shown at this time, but interest could grow in the future. This file would supply the basic minerals data needed for a number of possible future actions. These include land sales or exchanges, mineral leases, and material sales.

Decision B: Federally controlled minerals other than coal and oil and gas must be made available for private industry, local governments, and private individuals if requested. Requests for disposal will be handled on a case-by-case basis, with due consideration to other resource values.

Rationale: Minerals are necessary for the continued growth, development and maintenance of the Nation. Their availability must be assured where necessary, with due consideration for other resource values.

RANGE

Many of the isolated parcels have been inventoried but have not been leased for grazing. Unauthorized grazing is probably occurring on many sites. These areas should be leased.

Size, problems relating to physical access, and low percentage of federal range limit the efficient management of the range resource on the scattered tracts. Negative cost constraints associated with these factors make custodial management the most cost-effective and logical option.

Current BLM grazing policy requires that management priorities be assigned among allotments or

groups of allotments within a planning area. It provides for placing similar allotments into one of three categories: (1) maintain their current satisfactory conditions; (2) improve their current unsatisfactory conditions; or (3) manage the allotments custodially, while protecting current resource values.

Decision A: Those tracts categorized for disposal will be offered for short-term nonrenewable lease and managed at the custodial level.

Rationale: Unauthorized grazing use, small size, low percentage of federal range, and access problems limit the efficient management of the range resource on the scattered tracts. Tract inventories rate these areas in fair to good condition. Short-term leases will ensure that the public will be compensated for use of the land by livestock, pending final disposition of these tracts.

Decision B: Continue to lease the following tracts for grazing and manage at the custodial level. Maintain the option of modifying or cancelling the existing leases consistent with the disposal categorization noted and as provided for under 43 CFR 4120.2-1(d) and 4130.2(d)(3). Leases subject to these provisions will be renewed on a short-term basis pending disposal.

Williams County

Township	Range	Section	Acres
154N	95W	Sec. 10: N1/2SE	80.00
156N	102W	Sec. 14: NESW, NWSE	80.00
153N	103W	Sec. 9: NWNE	40.00
159N	100W	Sec. 22: SENE, SENW, NESW, S1/2SW, N1/2SE, SWSE	320.00

McKenzie County

Township	Range	Section	Acres
149N	99W	Sec. 35: NENE	40.00
152N	100W	Sec. 24: SESE	40.00
152N	100W	Sec. 25: W1/2NW	80.00
151N	104W	Sec. 26: Lot 4	31.70

Rationale: Because the allotments are small in size and widely scattered, custodial management is the most logical. Range conditions on most of the allotments are satisfactory, indicating little need for improvement. Continued leasing of these tracts does not conflict with other surface resource values present.

Decision C: Following determination of property boundaries, the riparian tracts in the planning area will be studied further to acquire baseline resource data and determine range condition trend.

Rationale: The effects of wildlife-livestock interactions need to be determined. Basic inventory data is not available for these areas. The importance of riparian habitat to wildlife is widely recognized. The potential conflicts which may be present on these areas need to be identified.

WATERSHED

Upland Watersheds

Upland watershed areas fall into three hydrologic categories: prairie uplands, badlands, and wetlands. BLM policy and Public Law 95-100, Section 208, direct the Bureau to protect soil and water resources by ensuring an adequate amount of vegetative cover in each of these hydrologic areas.

Badland areas are fragile and of low productivity. Accelerated soil erosion once underway cannot be readily reversed. Therefore, surface actions which negatively impact existing vegetative cover must be restricted.

Degradation of baseline vegetative cover in wetland watershed areas will accelerate soil erosion and increase sedimentation and nutrient influx. Surface actions which negatively impact existing vegetation must be mitigated to halt "accelerated aging" occurring on many areas and to comply with Executive Order 11990.

Decision: Within the limits of custodial management, maintain or improve present vegetative cover to minimize soil erosion from tracts to be offered for short-term lease. Grazing lessees should be encouraged to follow best management practices developed by local soil conservation districts.

Rationale: Watershed degradation accelerates soil erosion, which causes a loss in soil productivity and contributes to poor water quality in the areas, thus violating Bureau policy and Public Law 92-500, Section 208.

Riverine Floodplains

Accelerated soil erosion degrades the watershed. The loss of soil productivity and increased nutrient loading contribute to poor water quality. To comply with existing Bureau policy and Public Law 92-500, Section 208, surface actions which negatively impact existing vegetative cover must be restricted during the peak runoff period. This will protect the flood plain and comply with Executive Order 11988.

Decision: Within the limits of custodial management, maintain or improve present vegetative cover in riparian areas which will be offered for grazing lease. Grazing lessees should be encouraged to follow best management practices developed by local soil conservation Districts. Surface disturbing activities should be kept to a minimum level. Ensure mitigating measures are applied to all surface disturbing activities, and assess these activities on a case-by-case basis.

Rationale: Watershed degradation accelerates soil erosion, which causes a loss in soil productivity and contributes to poor water quality in the area, thus violating Bureau policy and Public Law 92-500, Section 208.

WILDLIFE RESOURCES

General

BLM scattered tracts are not considered crucial to the well-being of the wildlife resources but are of sufficient value to warrant continued custodial management by BLM. Several of the scattered tracts of BLM land have wildlife values that would respond favorably to more intensive management, which would enhance the wildlife populations, productivity, and diversity for relatively large areas. Although proper livestock grazing management systems are often impractical on small tracts, the BLM could undertake wildlife habitat enhancements on these areas.

Decision A: The North Dakota Game and Fish Department (NDGF) will be given the option to nominate tracts from the disposal and retention categories for cooperative management. Such tracts should be identified by NDGF as being essential or critical to wildlife programs which are ongoing or being planned for the purpose of establishing water and habitat improvement and enhancement projects. Nominations should include preliminary plans outlining cooperative management objectives and proposed projects. Nominations from the disposal category not fully supported will be reclassified for disposal. Those lands determined to be eligible for cooperative management will be retained.

Rationale: Effective management of resource values present on BLM scattered tracts will provide long-term benefits to the public and help maintain wildlife and other resources for future generations. This would be accomplished by offsetting habitat loss and ensuring that the ecological islands are maintained and enhanced through intensive managment where possible to ensure diversity and stability in the total ecosystem.

Decision B: Manage riparian areas and associated uplands at levels that will ensure that their present condition of good or better is maintained.

Rationale: Riparian areas and the associated upland areas are critical sources of biological diversity. The majority of wildlife either depend on wetland-riparian areas or use them proportionally more than any other habitat type. Although the parcels administered by BLM are small, and the amount of riparian habitat is considerably less than upland habitat, their importance to the ecosystem and the public warrants their retention. Present condition of the riparian areas is acceptable (good or better) and present custodial management is adequate to preserve the riparian areas addressed by this recommendation.

WETLANDS

Significant amounts of wetland habitat have been destroyed or reduced in quality by various human activities. Executive Order 11990, Protection of Wetlands, gives direction to manage wetland ecosystems to preserve and enhance their values. The National Environmental Policy Act gives additional direction to manage resources so that the Nation may attain the widest range of beneficial uses of the environment without degradation.

Decision: Retain under BLM administration those wetlands not identified for mitigation for the Garrison Diversion Project. Prepare a habitat management plan (HMP) for them under Sikes Act authority by October, 1985. Use land exchanges where possible to increase manageability of wetlands.

Rationale: Enhanced values and benefits to society can be realized with this decision. The BLM has increased emphasis on management of wetlands to preserve and enhance them. Management under a Sikes ACT HMP will allow for cooperative management and improvement of wetlands. Potential mitigation areas for the Garrison Diversion Project have already been identified and are addressed in the lands decision, as is acquisition of BLM wetland tracts by the Fish and Wildlife Service.

RECREATION

Decision A: Tracts along Lake Sakakawea and its major tributaries will be retained in public ownership or possibly exchanged for other tracts along these areas.

Rationale: The isolated nature of these federal tracts precludes any active recreation program by BLM in the MFP area; however, tracts adjacent to Lake Sakakawea and its major tributaries have high recreational value. Their proximity to these major recreational sites, scenic values, proximity to the Lewis and Clark National Trail, and habitat values combine to make these areas important recreational sites. Proposals for cooperative management with the North Dakota Parks and Recreation Department will be considered, as will valid applications under the Recreation and Public Purposes Act for management of these lands for public use.

Decision B: Acquire lands adjacent to existing public lands bordering the Missouri and Yellowstone rivers. Acquisition could be accomplished by gift to the United States or by exchange of lands identified for disposal.

Rationale: The scattered tracts adjacent to rivers or lakes have high public values. They offer good recreational opportunities for the general public, and some provide access to the Lewis and Clark National Trail. BLM lands along these rivers are limited in size, and expanding these areas would greatly add to their management potential.

PALEONTOLOGY

Paleontological resources are a part of the national heritage, and BLM must manage for the wisest use of this resource. The primary purpose of BLM management of paleontological values is protection. Paleontological remains are useful for reconstructing environments of the past and for correlating geological formations. This type of resource is relatively rare.

The 1906 Antiquities Act does not specifically list fossils, but rather "objects of historic or scientific interest." Because of this provision, scientific research has been conducted under an Antiquity Permit. Recently this interpretation has been questioned; but even if it is dropped, research in paleontology will probably continue under some type of permit system. The permit system provides a measure of quality control and supervision over the extraction of fossils from public lands.

Potential consumers of the resource are scientific and research institutions, educational organizations, and recreational collectors.

Decision A: A number of paleontological sites are known or suspected to exist on the scattered tracts in this planning area. Before allowing surface disturbing activities on lands with known sites, the significance of the sites will be assessed by BLM personnel. Additionally, if any paleontological sites are discovered during surface disturbing activities, operations will be required to cease and a report will have to be filed with the BLM. The significance of the sites will be assessed. In all cases, suitable mitigation measures will be prescribed for significant sites.

Rationale: Surface disturbance could have a detrimental impact by destroying a rare resource of scientific importance. Proper mitigating measures could lower that impact to acceptable levels.

Decision B: Maintain an inventory of paleontological sites and areas, which can be used to identify locations that need special protection.

Rationale: The BLM is required to protect paleontological values. At present there is very little specific knowledge of this resource in the planning area and, in all probability, important sites are deteriorating or being destroyed because of this lack of knowledge. The management objective of reducing deterioration and protecting the resource from loss cannot be met without an inventory.

SUMMARY

A total of 3,280.12 acres of public land is included in the McKenzie-Williams MFP. Not addressed in the MFP are 214.92 acres of public domain in the lakebed of Lake Sakakawea; they are administered by the United States Army Corps of Engineers through rights-of-way. The remaining 3,025.2 acres are classified in three categories: retention, disposal (sale, transfer, exchange), and further study, according to criteria in State Director Guidance (see Table X).

The option is retained on all tracts to reclassify them or change management based on new data or policy changes.

All mineral rights underlying BLM surface lands will be reserved by the federal government, except where there are no known mineral values, or where the mineral reservation would preclude a more beneficial use of the land. Exploration and leasing for oil and/or gas on all tracts will continue to be allowed. All other minerals will be made available for private industry, local governments, and private individuals on a case-by-case basis.

All public lands will remain open to rights-of-way applications. Unauthorized use will be resolved through the mechanisms identified in State Director Guidance.

Wetlands and riparian areas will be retained by the BLM. Attempt to acquire lands that are adjacent to existing public lands bordering the Missouri and Yellowstone rivers through gift to the United States or by exchange.

Grazing will continue to be allowed on tracts already under lease and managed at the custodial level. Where tracts under lease have been identified for disposal, the grazing lease may be modified or cancelled, as provided for under 43 CFR 4120.2-1(d) and 4130.2(d)(3). Tracts currently unleased for grazing which are categorized for disposal will be offered for short-term nonrenewable grazing leases and managed at the custodial level.

TABLE X
SCATTERED TRACT CATEGORIZATION SUMMARY

	Acreage
Total Acres of Public Land	3,280.12
Corps of Engineers Right-of-Way	254.92
Acres Addressed in Land Use Plan	3,025.20
Lands Categorized for Retention	260.45
Lands Categorized for Retention, Pending Further Study	296.24
Lands Categorized for Disposal	2,468.51
Acreage identified for transfer to Bureau of Reclamation/U.S. Fish and Wildlife Service	440.00
Acreage identified for transfer to U.S. Forest Service	40.00
Acreage identified for Sale/Exchange	1,708.51 *
Deferred Disposal/Retention	280.00
Total	**3,025.20**

*Approximately 51 percent of the acreage identified for sale/exchange is located in high-moderate potential coal areas.

CHAPTER 4
PUBLIC COMMENTS AND RESPONSE

DAKOTA RESOURCE COUNCIL

DAKOTA RESOURCE COUNCIL
P.O. Box 254
29 Seventh Avenue West
DICKINSON, NORTH DAKOTA 58601
(701) 227-1851

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COMMENTS ON THE SOUTWEST AND MCKENZIE-WILLIAMS MANAGEMENT FRAMEWORK PLANS - SEPTEMBER 29,1983

1. The McKenzie-Willlams and Southwest Management Framework plans should be Resource Management Plans.

According to the federal coal leasing rules (43 CFR 3420.1-5(e)) (1980), activity planning may not be started after December 31, 1984 unless the area is included in a comprehensive land use analysis, prepared in conformity to the 1600 regulations. An RMP may not be approved unless
- ao environmental analysis of alternatives identified io the plan is accomplished as part of the RMP processs and
- the plan and related environmental impact statement are published as a single document (44 FR 46394) (August 7, 1979).

This was not done with either the Southwest or McKenzie-Williams MFPs. The MFPs are said to be developed as a result of an "issue-driven" planning process; therefore, they are said to include elements of an RMP. However, the MFP's do not ioclude an eovlroomental lmpact statement of a range of land use planning alternatives. Nor do the MFPs lnclude a number of major planing lssues which were identifled at the scoping hearings. 1

Appendix B of the Plans lists a number of subissues, such as agriculture, alr quality, reclamation of farmland, socioeconomic conceros and woodland, wetland and native prairies, which were oot addressed ln the plans. Rather, the lssues are to he handled at the activity planning stage.

The land use planning program was lntended to put all resources and resource users in a more equitable posltion. By addressing the subissues at the activity planning stage, it appears that the burden of proof is on ranchers and the public at large to prove why a glven resource use is superior to that use identlfied by the BLM. BLM should be giving equal consideration to all of these concerns if the Resource Management Plan rules were followed. We recommend that a Resource Management Plan be done ln both of these areas - to comply with the regulations, and to honor the spirit and purpose of the land use planning portion of the federal coal management program. 2 3

2. The MFPs do not reflect the true opposition to federal coal development, and do not apply the surface owner consultation screen ln a truly equltable manner.

The federal law states that "the Secretary shall, ln his discretion, but to the mazimum extent prac'icable, refrain from leasing coal deposlts for development... in those areas where a significant number of surface owners have stated a preference against the offering of the deposits for sale." (Surface Mining Control and Reclamation Act of 1977, Section 714(d)) 4

DAKOTA RESOURCE COUNCIL COMMENTS ON THE SOUTHWEST AND MCKENZIE WILLIAMS MANAGEMENT FRAMEWORK PLANS

-2-

The regulations state that a surface owner who has granted consent to mlne shall be deemed to have expressed a preference for mining. These regulations further state that areas can be considered for leasing, even lf a slgnlficant number of surface owners have responded negatively to a consultation lf surface owners have glven a consent to mlne.

We would like to polnt out that thls ls a very serlous problem in North Dakota. Unitl the Surface Mining Control and Reclamation Act was enacted in 1977, surface owners in this state had no opportunity to refuse the mining of federal coal on their land. If a farmer were approached by a coal company to lease their surface, they had two choices 1) sign the lease for whatever surface damage compensation was provlded ln the lease or 2) refuse to lease, and face the coal belng mlnsd out from under them with no compensation for surface damages; instead taking their chances in court.

Many of the acres of land were leased prior to 1977 under these conditlons. A prudent farmer would probably welgh these two choices and decide to lease, regardless of his preference for coal development. Yet the federal rules say that these surface owners should not he counted in the surface owner consultation screen if they had previously lease. We think that these people should be counted during screening. We also suggest that the lntent of SMCRA, to coosider opinions durlog consultation, does oot suggest excluding the opinions of surface owners who have leassd, even lf the regulations state this. 4

A signlficant oumber of surface owoers io both MFP areas were consulted and responded negatively to coal development. Yet their responses were discouoted because they had already leased. The Southwest MFP identified 201 surface owners who were opposed to federal coal leasing. Of these, 61 (or 30%) wers opposed, hut thsir opposition was not counted because their lands were leased. The McKenzie-Williams MFP identified 221 surface owners who were opposed to federal coal leasing. Of these, 54 (or 24%) were not counted.

The MFPs should more clearly identify the issues iovolved in coal leasing, and should apply the surface owner consultation screen to include those who have leased prior to the passage of SMCRA.

3. The exclusion area identified in Unsuitablity Criterion 3 does not follow the dictates of North Dakota State Law.

Section 38-14.1-07 of the North Dakota Century Code designates that mining is prohibited within 500 feet of an occupied dwelling, and 300 feet of any public building, church, etc. We suggest that this Unsuitability Criterion be changed to reflect the more stringent state law. 5

STATE NATURAL RESOURCE AGENCIES

State of North Dakota
DEPARTMENT OF UNIVERSITY & SCHOOL LANDS
Capitol Building
Bismarck, North Dakota 58505
701/224-2800

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September 30, 1983

Mr. Reed L. Smith
District Manager
Dickinson District, BLM
P.O. Box 1229
Dickinson, ND 58601

RE: State of North Dakota Response to the McKenzie-Williams and Southwest North Dakota Management Framework Plans.

Dear Mr. Smith:

This letter represents a consolidated response by the North Dakota natural resource agencies to the Southwest North Dakota and McKenzie-Williams Management Framework Plans. A major thrust of these MFP's revolves around the application of unsuitability criteria to the various coal tracts. In general, we view the major importance of this effort as one of eliminating conflicts between high value surface resources and coal mining. Also, in general, we believe the applications of criteria as presented in the McKenzie-Williams and Southwest North Dakota Management Framework Plans accomplished that surface protection objective. This is particularly true in areas such as the Missouri River and its major tributary breaks, the "badlands", and the prairie pothole region. Specifically we concur with the recommendations for the Keene, Tobacco Garden, and Bennie Peer coal deposits in the McKenzie-Williams MFP. We also concur with the recommendations for the Williston deposit, however, the areas away from the Missouri River and its tributaries warrant further discussion as do the remaining coal deposit areas.

Specifically the Hanks, Sand Creek, and the coal tracts in the southwest MFP as well as the upland portion of the Williston tract have some scattered areas that are being proposed as unsuitable. The state's position has always been one of promoting orderly coal development and maximum extraction in a logical mining unit while providing adequate environmental protection. While these specific areas contain scattered areas essential to wildlife and other criteria screens, there may very well be some scattered parcels currently being recommended as unsuitable for leasing that upon further review could be developed without significant long term impacts. We are very concerned about the creation of unnecessary bypass situations as a result of these MFP's. We believe that the BLM, through a more intense consultation process, may be able 1

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to apply exceptions to certain scattered "unsuitable" tracts. This requires, of course, that the areas in question be reclaimed in such a manner as to insure no significant long term impact to high value surface resources.

Therefore, while we concur with the determinations of essential habitat already made, we recommend that the BLM review, in the light of specific concerns, those scattered tracts that have been designated as unsuitable for mining. We recommend that these scattered tracts be reviewed on a case by case basis to balance the objective of maximum recovery of the coal resource with the objective of wildlife habitat preservation. In any conflicting situations, we recommend that the BLM evaluate whether these areas could be mined and reclaimed without significant long term impacts to the surface resources being protected.

We understand that the BLM is prepared to proceed with additional study of Criterion #15 procedures and methodology and to review, on a random basis, parcels within the two management areas to determine whether they are subject to Criterion #15. Apparently final state concurrence on these wildlife issues would be postponed until the results of this additional work are known.

It is suggested that as an alternative to the proposed additional Criterion #15 procedures study you consider the application of a case by case exception review procedure. This approach is preferred by the State Game and Fish Department. That Department is available to consult with you on such a process. 1

On the question of the disposition or retention of BLM surface holdings, please refer to Governor Olson's letter of May 11th to the Secretary of the Interior. Specific recommendations will be provided by the state's natural resource agencies. They will include recommendations for retention as well as suggestions for areas to consolidate federal and state holdings. 2

Sincerely,

R. E. Lommen

R. E. Lommen
State Land Commissioner

USDI, FISH & WILDLIFE SERVICE

United States Department of the Interior
FISH AND WILDLIFE SERVICE
NORTH DAKOTA
1500 CAPITOL AVENUE
BISMARCK, NORTH DAKOTA 58501

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SEP 16 1983

MEMORANDUM

To: District Manager, Bureau of Land Management
Dickinson, North Dakota

From: Field Supervisor-Habitat Resources
Bismarck, North Dakota

Subject: McKenzie-Williams and Southwest Management Framework Plans (MFP), June 1983

The Fish and Wildlife Service (FWS) has reviewed the subject documents and offers the following comments. These comments are submitted in accordance with our Memorandum of Understanding (MOU) on coal, the National BLM/FWS MOU and coordination responsibilities under the Federal Coal Management Program.

In general, the Service believes the two documents are quite well organized and provide a logical planning approach to management of the federal split-estate minerals and the scattered tracts under BLM administration. From a wildlife perspective, the BLM recommendations portrayed on the maps entitled, "Unsuitability Criteria 14 and 15" and "Cumulative Effect of Screens" accurately reflect the Service's input to BLM on the wildlife unsuitability application process and the subsequent application of exceptions during April 20 and 21, 1983. We believe the final interagency recommendations developed during that time period represent a well-balanced and defensible approach to minerals management and wildlife conservation. The majority of wildlife habitats considered unsuitable coincide with areas being recommended for exclusion by a number of other screens (e.g., surface owner opposition, buried channel aquifers, steep slopes and Lake Sakakawea buffer). This fact lends a high degree of credibility and strength to the BLM recommendations for areas excluded from further consideration for coal leasing. We complement BLM's recommendations which are apparently driven by the resource screens of the BLM planning process. 1

BLM's recommendations and supporting rationale on the wildlife unsuitability criteria are quite concise and provide a good discussion on the unsuitable and suitable with stipulation categories. We believe they adequately reflect the thoughts of the state and federal biologists involved in the wildlife unsuitability application process. We agree with BLM that the respective maps for each coal deposit show only approximations of the areas recommended for each category. We have noted omissions as large as 320 acres in the McKenzie-Williams document and, therefore, support use of the 1:24,000 map recommendations for detailed identification of areas. If ever needed, the Service also has a complete set of the team unsuitability recommendations and subsequent agreements on the application of exceptions.

Deferred leasing is recommended by BLM for those areas where coal development would be in conflict with oil and gas development. This occurs in the Keene Deposit and the extreme eastern edge of the Williston Deposit. Although not totally apparent from the planning document, the wildlife unsuitability criteria were not applied to these areas. We look forward to future coordination with the BLM and North Dakota Game and Fish Department (NDGFD) when these areas are reconsidered for leasing. 1

Table IX (McKenzie-Williams MFP) identifies BLM lands for disposal by sale, exchange or transfer. Five parcels with wetlands in Williams and Divide Counties are categorized for potential transfer to the Bureau of Reclamation (BR) for Garrison Diversion Unit mitigation tracts or to the Fish and Wildlife Service. In May 1983, an interagency team consisting of representatives from the FWS, BR and NDGFD conducted a biological screen of these lands for their appropriateness as mitigation lands for Garrison Diversion Unit. The following two tracts were identified for further evaluation in 1984: 2

Williams County

T. 159 N., R. 100 W., Section 22 (all parcels totaling 320 acres)

Divide County

T. 160 N., R. 103 W., Section 15, W½NW¼, NW¼SW¼ totaling 120 acres

The other three tracts should no longer be considered as possible mitigation lands, but should remain in the category for possible transfer to the Fish and Wildlife Service.

Additional discussions (pages 71 and 77, McKenzie-Williams MFP) of mitigation lands state that the "Fish and Wildlife Mitigation Policy identifies the use of public lands as being a priority for mitigation purposes". It is unclear whether BLM is referring to BR's Mitigation Policy for fish and wildlife or to the Fish and Wildlife Service Mitigation Policy. We believe that BLM should clarify this sentence. The BR and FWS are assessing the feasibility of using public lands as mitigation for the Garrison Diversion Project. However, guidelines set forth in the U.S. Fish and Wildlife Service Mitigation Policy (Federal Register, Vol. 46, No. 15, January 23, 1981) do not identify public lands, per se, as a priority for mitigation purposes. 3

Because of the scattered nature of BLM's surface lands in North Dakota, efficient management of the various resources is a difficult task. Relative to range management and wildlife, we support BLM's recommendation to inventory riparian areas and determine range conditions as it relates to wildlife/livestock interactions. We believe that this information, in addition to baseline range conditions on other tracts, is paramount to the development of your grazing environmental assessment for BLM surface lands in North Dakota. This information may be especially important for areas like the Big Gumbo Management Unit. In general, the FWS supports BLM's objectives and associated rationale for management of wetland habitats and other resources on the scattered tracts.

The Montana State Office recently apprised us that some areas in the Hank's Deposit recommended as unsuitable based on the wildlife criteria are currently in an agricultural land-use category. The wildlife values for which the areas were recommended as unsuitable are no longer present. Consequently, we recommend that the unsuitability recommendations be revised to suitable or suitable with stipulations if any woodlands, wetlands or native prairie exist.

The possibility for this "error" is not unexpected since the recommendations were, in part, based on habitat information derived from photointerpretation of 1977 vintage photography and winter conditions precluded field verification of every tract of land. The interagency biological team (BLM, FWS and NDGFD) observed a fair amount of land-use changes during field reconnaissances and made appropriate changes to their initial draft recommendations. Accordingly, in the transmittals of the narrative of each coal deposit by Staff Biologist Hoffer on February 25, 1983 (McKenzie-Williams) and March 7, 1983 (Southwest), they acknowledged the potential for some errors. A copy of the Hank's Creek Deposit narrative is attached. The NDGFD and FWS's respective letters of April 8 and 19, 1983 (copies attached), also reference these issues. 1

Any "errors" are most likely due to the conversion of high quality wildlife habitats to agricultural land uses since the date of photography, i.e., 1977 in McKenzie-Williams and 1981 in Southwest. Some may be due to misinterpretation of the photography, but this is very unlikely due to the nature of the photo-signatures and interspersion of significant wildlife habitats.

We are supportive of BLM's decision to further field check or conduct aerial surveys in the Hank's Creek Coal Deposit and offer our assistance in rectifying any apparent conflicts. Recognizing that land-use conversions are inherent with time, we believe that BLM should be prepared to accommodate these situations and, if warranted, change land-use planning recommendations to reflect the most accurate resource information available to date.

The FWS appreciates the opportunity to have assisted in development of recommendations for identification of lands to be carried forward for further consideration for leasing. We believe that our recommendations, in combination with those on other unsuitability criteria and resource screens, provide BLM with a good foundation upon which to base initial land-use planning decisions. We support the recommendations as presented in the McKenzie-Williams and Southwest Management Framework Plan documents and reiterate our offer to assist in additional field verification of particular deposits. Please contact Roger Collins or Bill Bicknell (255-4011, ext. 492) regarding this effort.

M. D. Zuckmeier

Attachments

cc: ARD-HR, Denver
(Attn: F. Cole)
ND Game & Fish Dept.
(Attn: M. McKenna)
BLM, Billings
(Attn: M. Penfold & R. Hoem)

NORTH AMERICAN COAL COMPANY

THE NORTH AMERICAN COAL CORPORATION
WESTERN DIVISION
KIRKWOOD OFFICE TOWER * BISMARCK, NORTH DAKOTA 58501 * (701) 258-2700

September 20, 1983

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Mr. Reed L. Smith
District Manager
Bureau of Land Management
Dickinson District Office
P.O. Box 1229
Dickinson, North Dakota 58602

Dear Reed:

Enclosed are The North American Coal Corporation's formal comments on the McKenzie-Williams Management Framework Plan, Hanks Coal Deposit. We appreciate the opportunity to comment on this plan, and hope you will find our comments useful and constructive.

We would also like to take this opportunity to extend our thanks to you and Craig Altop for your cooperation on this matter, and for your time and efforts in reviewing North American's concerns. Your past and future considerations are appreciated.

Sincerely yours,

THE NORTH AMERICAN COAL CORPORATION

Dean B. Peterson by PC
Dean B. Peterson
Assistant Director -
Environmental Affairs

D. Randall Crooke
D. Randall Crooke
Environmental Specialist

DBP/DRC:ba
enc.

THE NORTH AMERICAN COAL CORPORATION
BLM MANAGEMENT FRAMEWORK PLAN
HANKS COAL DEPOSIT COMMENT PACKAGE

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Before beginning preparation of this comment package, the North American Coal Corporation's (NACCO) Exploration Department and Western Division technical staff reviewed the Bureau of Land Management (BLM) Management Framework Plan (MFP) for the Hanks, New England, and Regent Coal Deposits.

Several questions surfaced regarding the application of unsuitability criteria in the BLM Management Framework Plans for the Hanks, New England, and Regent Coal Deposits. A field review of the Hanks Coal Deposit was made by NACCO staff August 5, 1983, and again on August 16, 1983, accompanied by BLM District Office staff. A technical staff meeting between NACCO and BLM personnel was held on August 8, 1983, to discuss BLM's methodology and data base used in developing the MFP's.

Comments we have prepared are broken into two sections: Administrative; and Technical.

Administrative Comments

The potential for serious administrative and planning problems developing for NACCO exists if improper planning for federal coal lands occurs. We are very much concerned that every effort is made in the MFP development process to correctly assess unsuitability based upon rationale objectives, good evaluation methodology, and a reasonable data base. Therefore, we would like to emphasize the following important points:

1. Extreme care should be taken when applying unsuitability criteria, because of the potential effect on coal deposits. Overly broad evaluations may unnecessarily complicate the marketing of a coal field which occurs many years ahead of actual field development work and detailed planning.
2. Unless an unsuitability issue is "black and white" a given area should not be dropped from the planning process leading to a lease sale.
3. When considering unsuitability assessment issues, it is important to be aware that several resource protection mechanisms are available to anyone who has an unsuitability concern. For example, petitions to designate an area unsuitable may be made even after the filing of a permit application for the area, as provided in Section 38-14.1-1-09, NDCC.
4. Unsuitability Criteria 14 and 15 were improperly applied in the MFP-Hanks Coal Deposit. (Detailed comments on this subject are provided in the Technical Comments portion of this comment package).
5. The reclamation potential in the Hanks Coal Deposit, in our opinion, based on North Dakota surface mining experience, is good to excellent.

We fully support the MFP development process directed toward the evaluation of leasing federal coal. But, as stated in the McKenzie-Williams MFP, it is important to recognize that this MFP is not a land use plan for private, state, or other (non-BLM) federal agency resources.

Technical Comments

The North American Coal Corporation has several technical concerns regarding the application of the wildlife criteria, numbers 14 and 15, in the Hanks Coal Deposit, as applied by the BLM. The main concerns we have in this type of situation, where large tracts of mineable coal can be completely removed from further planning processes leading to leasing, is the information on which such unsuitability decisions are made, and the legal options available to the BLM in applying the criteria. We believe that inadequate information and a lack of consideration of viable options in applying Criteria 14 and 15 have resulted in several areas of leasable coal in Hanks Coal Deposit being recommended as unsuitable.

Those familiar with surface coal mining operations under current regulations are aware that many areas within given active permit boundaries may not be disturbed at all. Some natural features within a permit are preserved and utilized in the resource area of hydrology management, or for wildlife habitats. In other words, some areas within a permit boundary may not be mined because of mining and reclamation economics, or engineering problems. It is inaccurate to assume that any habitat type will be wholly or partially destroyed by mining without at least a preliminary mining plan to predict the nature of mining disturbances there. Furthermore, most such disturbances are mitigatable by suitable reclamation and mining practices, if mine planning shows that the [illegible] are expected to occur. [illegible]ing activity does not necessarily entail negative impacts to Criterion 14 and 15 species.

Based on field reconnaissance of the Hanks Coal Deposit by NACCO personnel in August, 1983 (see attached map for unsuitable-recommended areas visited), we believe there has been a broad misapplication of wildlife criteria, Criteria 14 and 15, to exclude several areas of mineable coal from leasing that are, in fact, quite suitable.

These areas consist largely of native rangeland dissected by a well-developed drainage pattern of several creeks and watersheds. The overall topography is strongly rolling, with well vegetated slopes. Coulee bottoms and side slopes are generally dominated by Symphoricarpos spp. and occasionally by smaller clumps of Prunus, Amelanchier, or Rosa.

The following outlines our objections to the manner in which Criteria 14 and 15 were applied in the area that we reviewed:

Firstly, all the assessments were based on habitat analysis interpreted from color-infrared aerial photography (CIR) taken in 1977. Ground-truthing should have revealed areas where native prairie wildlife habitats had been converted to croplands. Adequate time or effort to ground-truth all unsuitable areas during warm seasons of the year should have been made to correct errors in interpretation, or confirm determinations. Several unsuitable-recommended areas shown on BLM maps showed considerable cropland inclusions when reviewed on the ground.

Secondly, in the areas that we reviewed, the types of habitats that occurred are highly reclaimable. The most extensive habitat type in the unsuitable-recommended areas was native rangeland, with low shrubby coulee-bottoms and fairly gentle, rounded slopes. These habitat types do represent valuable habitat that is essential for the life cycles of some Criterion 15 listed species. While no inventory data was obtained to ascertain local population levels of these species, NACCO believes that essentiality is not the main concern in the application of this criterion. The language in the criterion states: "A lease may be issued if, after consultation with the State, the surface management agency (BLM) determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected." NACCO believes that such determinations could be made with available information, but that no consideration of this exemption was made.

If these habitats were to be mined, they would largely be reclaimed to rangeland, with legally required wildlife enhancement or replacement features included. A wildlife inventory, required by North Dakota Administrative Code Section 69-05.2-08-15, and the required mine plans will provide detailed information about any probable impacts to the listed species. Sensitive populations and habitats of high value (which includes all essential habitats) must be identified and avoided, enhanced, or reclaimed by any successful permittee (NDAC 69-05.2-13-08). In order to receive a permit to mine, any company must develop reclamation plans to prevent long-term effects on wildlife. Such reclamation plans should preclude any significant long-term impacts to the listed species. Because no long-term impacts would occur as a result of mining in these areas, NACCO believes that BLM should apply the above-mentioned exemption and allow leasing to proceed.

Recommendations

NACCO believes that, in the Hanks Coal Deposit, sufficient protections to the listed species are available in current surface coal mining reclamation law to allow mining by applying the exemption available in the Criteria. The reclaimability of Hanks Deposit habitats, coupled with the required level of information, and habitat replacement, avoidance, or enhancement will preclude significant long-term impacts to Criterion 14 and 15 species.

Recommendations of all essential habitats as unsuitable in the Hanks Coal Deposit, we believe, is a broad misapplication of the criteria. The criteria language recognizes that essential habitats can be successfully mined without jeopardizing the species being protected. Not applying the exemption in a highly reclaimable area, such as Hanks Deposit, represents an excessive loss of suitable coal land.

NACCO urges the BLM to consult with the necessary wildlife agencies in the state and federal government to apply the available exemptions and allow issuance of leases in the Hanks Deposit Area. This level of flexibility is an integral part of applying Criteria 14 and 15, and should be thoroughly addressed by BLM in their efforts to carry out leasing plans in Hanks Coal Deposit. NACCO does not believe that adequate grounds now exist to maintain unsuitable recommendations for these highly reclaimable habitats.

CHEVRON RESOURCES COMPANY

1608
mw
(LND)

Chevron

Chevron Resources Company
A Division of Chevron Industries, Inc.
595 Market Street, San Francisco, California
Mail Address: P.O. Box 3722, San Francisco, CA 94119

September 30, 1983

RECEIVED
BLM - Dickinson District
OCT 03 1983
Reading ___ Central ___

Mr. Reed L. Smith
District Manager
U.S. Department of the Interior
Bureau of Land Management
Dickinson District Office
P. O. Box 1229
Dickinson, ND 58602

Dear Mr. Smith:

It was a pleasure talking to you on September 29, 1983 about the M.F.P. for McKenzie, Williams and parts of Divide County in North Dakota. We specifically discussed an area southeast of Ray, Williams County, in R97W, T156N and T155N; R96W, T156N and T155N centered over Beaver Creek. Chevron Resources over the past ten years has developed a substantial coal reserve (which we call Tioga) on private land in that area and has been anticipating the federal lease sale of the adjoining federal lands. Unfortunately, I received the M.F.P. recommendations only late last week and thus Chevron Resources has not had an opportunity to comment on your plans. I thank you, however, for permission to present our comments at this late date.

My principal concern relates to the exclusion of certain isolated federal land holdings which are close to or in the buried Ray aquifer (see enclosed map). The rationale for exclusion of the Ray aquifer is its importance as a high yield, high quality water source, usable for irrigation and domestic consumption (M.F.P., page 41).

Chevron Resources undertook a hydrologic study of the Ray aquifer in 1981 because it, too, was concerned about damage to the aquifer and to determine how much of a problem for open pit mining it would present. We do not yet have all the answers, but we believe that drawdown due to dewatering will not be significant if judicious mine planning is carried out.

As your report states, changes in the exclusion of areas due to updated information will be made in the decision document. This does not give us much time to demonstrate whether or not the Ray aquifer can be safely mined. I suggest that your recommendations be amended and that you change the status of the federal leases near the Ray aquifer from "areas excluded from further consideration for coal leasing" to "coal leasing deferred." This would give us the flexibility to categorize areas in question for the greatest benefit of all concerned.

Mr. Reed L. Smith - 2 - September 30, 1983

Thank you for allowing Chavron Resources to present this belated comment. Please feel free to request a review of our data on the matter — we are at your disposal.

Yours truly,

H. E. Neugebauer

HEN:mg
Enclosure

ATLANTIC RICHFIELD COMPANY

AtlanticRichfieldCompany 555 Seventeenth Street
Denver, Colorado 80217
Telephone 303 575 7577

J. R. Mitchell
Public Lands Coordinator

1608 MW

RECEIVED
BLM - Dickinson
AUG 19 1983
Reading ___ Central ___

August 16, 19B3

Mr. Reed L. Smith
District Manager
Bureau of Land Management
P.O. Box 1229
Dickinson, North Dakota 58602

Re: McKenzie-Williams Management Framework Plan

Dear Mr. Smith:

Atlantic Richfield Company appreciates having the opportunity to provide comments to the Bureau of Land Management (BLM) on the Management Framework Plan (MFP) which has been prepared for McKenzie, Williams, and southern Divide Counties, North Dakota.

As a major domestic energy and minerals producer, Atlantic Richfield is vitally concerned with the management of this nation's public lands, and strongly supports a balanced approach to their multiple use. We are encouraged by the sensitivity which the BLM has demonstrated towards energy and mineral resources in developing the MFP. Such recommendations as making federal coal resources available to meet market needs, making all BLM-administered oil and gas reserves available for exploration and development, and developing a geology, energy and minerals inventory program indicate that the BLM is committed to effective multiple use management. These recommendations are particularly important because of this area's documented oil and gas potential, making it perhaps the most productive area in the entire Williston Basin. The Rockcliff, Mission Canyon, Red River and other producing formations are indicative of the potential which this area holds. We therefore support the BLM's efforts to help ensure that these resources will be open to further exploration and development.

Thank you for this opportunity to provide comments on the McKenzie-Williams MFP.

Sincerely,

J. R. Mitchell

JRM:JFO:drm

LEE MANSKE

P.O. Box 1117
Dickinson, ND 58601
Sept. 30, 1983

Reed Smith, District Manager
Bureau of Land Management
P.O. Box 1229
Dickinson, ND 58601

Dear Reed Smith,

I have reviewed the McKenzie-Williams Managment Framework Plan prepared by the Bureau of Land Management, United States Department of the Interior. I would like to express a few personal opinions and comments on the document.

The BLM has done a considerable amount of work in the preparation of this document. It was arranged in a concise and easy to follow format. The general approach and the additude towards the resources were much more desirable than when the west central management document was prepared. This change in approach is more condusive for sound management of our nations natural resources.

I was generally pleased with the manner that the unsuitability criteria and resource trade-offs were used. It was good to see that the wildlife criteria 14 and 15 were used. These criteria excluded a large portion of the federal coal reserve. It would be possible that a few of the areas that were excluded for wildlife have changed in quality of habitat if the aerial photographs that were used were two or three years old. Additional work in ground truthing these areas may be warrented. If after extensive search any areas are found that have changed considerably in wildlife habitat quality, they should be changed appropriately on the maps to reflect present conditions. If additional areas of good wildlife habitat are found they should be added to the maps. 1

The wildlife criteria sub-category of suitable with stipulations needs some additional general explanations as to the implimentation and use of this sub-category. This sub-category should also include a statement to the effect that before an area that is designated as suitable with stipulations can be mined, adjacent or near by areas of similar habitat quality with travel corridors should be provided so that the resident wildlife would have a place to go. After mining, these suitable with stipulations areas should be restored or replaced. 2

The scattered tracts that are presently categorized as Proposed Disposal by sale, exchange or transfer, should be temporarily placed in the category for further study. Each tract should be evaluated separately as to future disposal or retention. Each tract should be extensively reviewed for potential public value for recreation, wildlife habitat, paleontological and archeological sites, or aesthetic values. A few scattered tracts may have one or more of these characteristics that would warrent retention for future public benefit and then managed at the custodial level. 3

Reed Smith
Sept. 30, 1983
page 2

The tracts that are too small to be managed other than custodial level and do not have high potential for future public benefit should be considered for disposal. The disposal method of exchange to facilitate blocking up a unit should be given priority. Small tracts that are surrounded by one land owner should be considered for exchange or sale to that land owner. Tracts with two or more adjacent land owners and without access should be opened for bids of exchange or sale from the adjacent land owners. Tracts that have access by road or trail would be of value on the market for open competitive bids but these tracts may have sufficient merit for retention in public ownership because of the access. 4

Thank you for the opportunity to make personal comments on the Bureau of Land Management, McKenzie-Williams Management Framework Plan.

Sincerely,

Llewellyn Manske, Ph.D.
Private citizen

JOHN A. HEISER

Bureau of Land Management
Dickinson District Office
Dickinson, ND 58601

RECEIVED
BLM - Dickinson District
OCT 03 1983
Reading ___ Central ___

John A. Heiser
Star Route, Box 136
Grassy Butte, ND
58634

Dear Sir:

Having just read the Southwest North Dakota and McKenzie-Williams Management Framework Plans, I would like to make several comments.

In general I believe a good job was done in preparation of the two plans, they are quite detailed and complete.

Being a member of six national environmental organizations I am very pleased to see that you do consider wildlife and other environmental concerns in your criteria determining an areas suitability (or unsuitability) for coal leasing. Too often such multiple-use values are ignored in such plans as these.

However, I would like to say that I oppose any coal leasing within about a 10 mile radius of Theodore Roosevelt National Park, as coal mining within such a buffer zone would cause unacceptable visual impacts for park visitors, as well as noise and air pollution. I am also opposed to any coal leasing near or on wilderness study areas being considered for that designation by the U.S. Forest Service. **1**

I do support your objectives concerning sale and/or consolidation of the scattered land parcels the B.L.M. now manages, it is a very logical choice for efficient land management. I also favor the multiple use management concept for B.L.M. surface lands, with wildlife and other environmental factors being equal to grazing or mineral development.

I also have several recommendations concerning the Big Gumbo Management area in Bowman County:

1. Manage as much of it as possible as a roadless area, with little or no development. This should be a viable alternative in a area this size.
2. Consolidate and block it up with additional land acreage.
3. Study and assess the effects of mineral/grazing development on wildlife and on all other life in the prairie-badlands ecosystem.
4. Develop a recreation plan as a part of multiple use for the area, there are many people who would use the area if they were aware of it. As a minimum level, I would suggest a primitive campground, a hiking trail, and access to the Little Missouri River for canoeing enthusiasts. **2**

I appreciate the opportunity to comment on these management plans and would like to remain involved in all phases of B.L.M. planning in this region.

Sincerely,
John A. Heiser

USDI, NATIONAL PARK SERVICE

United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 25287
Denver, Colorado 80225

IN REPLY REFER TO:
L7619 (RMR-PC)

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AUG 05 1983
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AUG 02 1983

Memorandum

To: District Manager, Dickinson District Office, Bureau of Land Management, Dickinson, North Dakota

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Management Framework Plan, McKenzie and Williams Counties, North Dakota

We have reviewed the subject plan and offer the following concerns and comments:

This plan does not mention Theodore Roosevelt National Park, its wilderness area or the fact that the park is designated a Class I air quality area. We realize that the planning process primarily addresses only those lands within the tracts studied, but it should not, even in this early planning stage, ignore the fact that effects of development will transcend tract boundaries. **1**

It is indicated that the primary reason for preparing this plan is to "explore the possibility of leasing Federal coal in terms of acres involved and the potential impacts of implementing the land use decisions." The discussion of impacts, however, appears for the most part to stop at the tract boundaries. The fact that wildlife, water and air do not recognize these borders receives little attention. **2**

Our principal concern is with the Bennie Peer tract lying 6-10 miles northwest of the North Unit and the Keene deposit which lies somewhat further from the park unit in the northeasterly direction. **3**

To reiterate, we believe that since this plan is mandated by law to provide information to the public from which they can draw conclusions and make decisions, the plan should be more thorough, even at this early stage, in the consideration of coal development in western North Dakota. **4**

Richard A. Strait

RESPONSES

Response to Dakota Resource Council

1. Regulations cited in 43 CFR 3420.1-5(e) (1980) have been superceded by revised 43 CFR 3400 regulations which were implemented on August 30, 1982. The revised coal regulations delete 3420.1-5(e). The McKenzie-Williams and Southwest North Dakota plans are in compliance with the 1982 revised 43 CFR 3400 regulations.

The two plans were prepared in accordance with the provisions of 43 CFR 1610.8, and an environmental impact statement is not needed at this time. An environmental impact statement will be prepared after leasing tracts have been delineated, during activity planning.

2. The issues cited were considered in making the resource trade-off decisions. They will be considered in more site-specific detail during activity planning. The full analysis of these issues is available to members of the public upon request.

3. A resource management plan, covering all BLM-administered lands in North Dakota, is contemplated for the future. In arriving at our decisions, BLM gave consideration to all known resource values, although not necessarily on an equal basis.

Federal coal regulations 43 CFR 3400 (1982), allow some resources to take priority over others. The screening process was applied to coal areas of high to moderate potential. Under the four screens, a wide range of resource values was considered.

Twenty unsuitability criteria address a number of ecological and cultural features. Resource trade-offs considered ten additional resource elements not covered by unsuitability criteria. Surface owner consultation was used to assess significant surface owner opposition. Land use plan consistency was used to identify potential conflicts between BLM plans and plans prepared by other agencies.

After application of the screens, the final coal decision identifies areas which will be considered further for coal leasing. All resource values which would be impacted by coal leasing will be analyzed during activity planning.

4. The BLM is bound by the federal coal regulations that pertain to surface owner consultation (CFR 3420.4(ii)). While it is true that federal law did not require consent before SMCRA (and thus surface owners lacked legal grounds for refusing to consent and, therefore, leverage in negotiating), there is no provision in the law or in federal coal regulations for treating pre-SMCRA consents differently from post-SMCRA consents. The BLM is directed to interpret valid written consents as evidence that the surface owner is in favor of mining.

5. We have retained the unsuitable designation for the 300-foot buffer zone around occupied dwellings, churches, etc. (with the possible application of exceptions), which is consistent with federal coal regulations. However, to be consistent with state law, we are adding an additional 200 feet to the buffer requirements, which is appropriate under the planning consistency screen. The additional buffer area is unacceptable for mining unless exceptions are applied.

Response to State of North Dakota Natural Resource Agencies

1. Based on this comment and others, and an internal review of the application of the unsuitability criteria, we have reevaluated the unsuitability recommendations. Many of the areas recommended as unsuitable in the draft, including the ones of concern to the state agencies, have been redesignated as suitable for further consideration for leasing, pending further study. The unsuitability criteria will be fully applied upon completion of additional data acquisition and analysis, with results of this application to be published in an MFP addendum. It is possible that lease stipulations will be added that would require a lessee to demonstrate reclamation which would result in no significant long-term impact to certain species. This could be done as an "exception" to the unsuitability findings or through some other administrative process. The MFP addendum will explain the approach to be used. Consultation with the State of North Dakota will, of course, continue in regards to the application of Criterion 15.

2. Our recommendation to dispose of BLM lands is limited to scattered tracts, usually smaller than 640 acres in size. We do not plan to dispose of any tracts which have high public values. Disposal would not be limited to sales, but could include exchanges and transfers. We will be emphasizing exchanges. Our goal would be to trade lands that have limited public values for lands that have a higher potential for public use. Lands will be sold only if exchange is not practicable.

Before the BLM would exchange or sell public lands in North Dakota, state agencies will be consulted.

Response to USDI, Fish and Wildlife Service

1. See response to State natural resource agencies. As a result of our reevaluation, we concluded that wildlife information in the deposits was not adequate to make **final** unsuitability designations for Criteria 14 and 15. Final designations for Criterion 11 in the Williston and Tobacco Garden deposits and for Criterion 12 in the Bennie Peer deposit are being deferred. The final determinations for Criteria 11, 12, and 14 will, of course, be made in consultation with the Fish and Wildlife Service.

2. The tracts identified as appropriate for mitigation for the Garrison Diversion Project have been retained in the "disposal to other agencies" category. The remaining three tracts have been placed in the "retention for management by BLM" category. These lands will remain open to withdrawal applications.

3. In response to this comment, the sentence has been dropped from the document.

Response to North American Coal Company

See responses to state natural resource agencies and Fish and Wildlife Service.

We agree that insufficient data is available to make final unsuitability decisions for certain criteria. We are, therefore, placing many of these areas in the category of lands suitable for further consideration for leasing, pending further study. This further study will be reflected in recommendations to be published in unsuitability addenda to the two management framework plans. The original recommendation on high concentrations of steep slopes excluded from further leasing consideration areas with greater than 20 percent slope. It was pointed out during the comment period that in many areas mining and reclamation are being successfully permitted and carried out in areas with between 20 and 30 percent slopes. On the other hand, there are areas that should be avoided that also fall within the 20 to 30 percent slope range. The decision is, therefore, to designate the areas with slopes greater than 30 percent as unacceptable for further consideration. The areas between 20 and 30 percent slope will be designated as acceptable for further consideration but will be reviewed and possibly avoided during tract delineation.

Response to Chevron Resources Company

The offer to share the new data is appreciated. Based on the availability of the new studies (which can be considered in activity planning), and the fact that very intensive hydrologic studies and showings are required by the State of North Dakota before any mine plan would be approved, we agree that dropping this area at the land use planning stage may be premature. Therefore, our decision is to make the area available for further consideration, pending further study. Sufficient data must be available prior to leasing to allow a reasonable determination of whether or not mining in the area would likely cause significant environmental damage.

Response to Atlantic Richfield Company

No response necessary, but comment noted with appreciation.

Response to Lee Manske

1. More on-the-ground evaluation of these areas will occur before the final decisions are made for Unsuitability Criteria 14 and 14. See responses to comments from the U.S. Fish and Wildlife Service and state natural resource agencies.

2. The sub-category of suitable with stipulations has been dropped for wildlife in this plan.

3. Before any BLM tract would leave the public domain through sale or exchange, it would be thoroughly evaluated, with consideration given for the values noted in the comment. If values are found on a tract which warrant retention, the tract will be retained.

4. Exchange will be given priority over sale. The decision on which method of sale to use for a particular tract will be subject to public review. The District Manager can choose from one of three methods: direct sale (no competition); competitive; and modified competitive, where a designated bidder is given the opportunity to match the highest bid. In no case would a tract be sold for less than the appraised fair market value.

Response to John A. Heiser

1. Possible visual impacts to Theodore Roosevelt National Park will be considered in delineating potential leasing tracts (during activity planning). If tracts are delineated within the Dickinson Deposit, visual impacts to the park will be addressed in the environmental impact statement for coal leasing.

During land use planning it is not cost-effective or practical to assess air and noise pollution to the park. During activity planning, after specific development proposals tied to specific coal conversion facilities are available, the necessary data will be acquired and analyzed.

2. The Big Gumbo Management Area does not qualify as a roadless area. Oil and gas have been produced in the area for many years, and there is an extensive network of existing roads used by ranchers and the oil industry. The other recommendations, for the most part, are consistent with our management objectives there.

Response to USDI, National Park Service

1. In response to this comment, the MFP has been changed and now discusses the Theodore Roosevelt National Park and its Class I air quality designation.

2. The MFP generally considered the impact to offsite areas as well as impacts to areas within the tracts. For example, a large area is considered unacceptable for further consideration in order to protect Lake Sakakawea. It is not practical at this stage of planning to fully consider the potential air quality or social and economic impacts from energy conversion facilities. The BLM realizes that development of a coal mine in North Dakota nearly always results in a conversion facility located in the immediate vicinity of the mine, but a reasonable assessment of the impacts of these facilities can only be made when some estimate of the type, size, and location is available. During activity planning (site-specific analysis and regional environmental impact statement), prior to the decision on whether or not to offer federal coal for lease, these details will be available and a complete analysis of the impacts of facilities will be made. Map 1 shows the boundaries of Theodore Roosevelt National Park.

3. The Keene Deposit has been dropped from further consideration for coal leasing for the life of this plan due to potential conflicts with oil and gas production.

4. Because the location and numbers of potential coal tracts or conversion facilities in the planning area is unknown, a more thorough analysis of coal development concerns is not practical at this time.

APPENDICES AND GLOSSARY

APPENDIX A
THE SPLIT ESTATE

In North Dakota there are over 4.2 million acres of federally owned minerals beneath nonfederal surface. This figure includes reservations involving coal, oil and gas, and other minerals, such as potash, uranium, and phosphate. Some of these reservations are for only one mineral, some are for certain combinations, and some are for all minerals.

The following is a brief account of the actions occurring early in the century that resulted in the separation of the mineral estate from the surface estate in large portions of the United States. Later actions that resulted in federal acquisition of minerals (approximately 300,000 acres in North Dakota-mostly a percentage ownership) are not discussed, but these acquisitions are included in the 4.2 million acre total.

As early as 1901, Congress was concerned with the problem of agricultural claims on lands believed to contain minerals. By 1905 Congress had become aware of widespread fraud involving these claims.

In 1906 two bills were introduced in Congress authorizing the president to reserve all coal and lignite found on the public lands for future disposal; however, neither of these bills was reported out of committee. Those supporting these bills were worried about the coal lands falling under the control of the monopolies. They were also concerned with the rate at which the Nation's fuels were being consumed.

President Theodore Roosevelt also voiced these concerns. In a message to the 59th Congress he pointed out that the amount of coal used in the most recent ten years was equal to that used during the preceding 50 years. "If we dispose of all the coal lands now we can be well assured that 25 years hence the generation then coming into manhood will regret our shortsightedness and lack of provision for the future," he warned.

Because Congress had not acted on the coal legislation, Roosevelt instructed the Secretary of Interior to withdraw the remaining public coal lands from homestead entry. Between July 26, 1906, and December 13, 1907, 66,938,800 acres of coal land were withdrawn by executive order, and on August 15, 1907, the first oil lands were withdrawn.

The withdrawal prevented those settlers who had selected coal and oil lands (prior to the withdrawal) from obtaining patents. In 1909, a law was enacted that allowed these settlers to obtain a patent to the lands with a reservation of the coal deposits to the United States. This was the first legislation establishing the separation policy.

The following congressional actions followed the same concept and expanded the separation policy to cover more lands.

1910 Law enacted that allowed new agricultural entries on coal lands (with coal reserved to the United States).

1914 Law enacted that allowed agricultural entries on lands containing phosphate, nitrate, potash, oil, gas, and asphaltic minerals, with these minerals reserved to the United States.

1916 Stockraising Homestead Act passed. It required that all minerals be reserved to the United State, when federal lands pass into private ownership.

Most of the federal mineral reservations in North Dakota are in the western half of the State. There are two basic reasons for this: first, most of the land in the eastern half had already been settled—with patents grants—prior to the establishment of the separation policy, and much of the western half was settled after the policy was in effect; secondly, all of the significant coal resources are located in the western half of the State.

These federal reservations are checkerboarded among minerals owned by the State of North Dakota, railroads, and banks, as well as private individuals. North Dakota is not unique in this; for example, Montana and Wyoming contain even larger acreages of federally reserved minerals than North Dakota.

Note: Most of the above information was gathered from a paper entitled "The Separation of Surface Mineral Estates in Public Land Disposition," which was written in 1964 by Tadd Linsenmayer, who was then a research assistant in the Office of Chief of Legislation and Cooperative Relations, Bureau of Land Management.

APPENDIX B

SPLIT-ESTATE FEDERAL MINERALS-COAL ISSUES AND PLANNING CRITERIA

ISSUE	END PRODUCT	PLANNING CRITERIA
Development of federal coal resources can cause signficant impacts to other resource values, such as wildlife, water, cultural resources, and scenery. Use of the land for roads, dwellings, cemeteries, parks, etc., can also be disrupted. Since almost all of the federal coal in the planning area underlies private surface, its development would affect surface owners.	Coal areas will be designated as being acceptable for further consideration for leasing. Areas to be excluded from leasing will be identified.	1. Coal potential—Identify those portions of the planning area which are underlain by coal with a moderate or high potential for development by surface mining. 2. Unsuitability Criteria (see Appendix D) 3. Other Resource Trade-Offs 4. Surface Owner Consultation The following are considered: a. Number opposed to leasing; b. Acreage incuded under "opposed;" c. Percent of federal coal in tract area; d. Distribution pattern of federal coal; e. Distribution pattern of opposed comments; f. Location and number of existing federal leases; g. Location and number of private and state coal leases; h. Location and number of surface lease agreements on lands over federal coal. 5. Other Land Use Plans (Consistency)
SUBISSUES		
1. Agriculture a. Concern with the displacement of agricultural production resulting from the development of federal coal. b. Concern with the trade-off between agricultural and coal values. c. Concern with the effects of coal development on individual farm-ranch operations.	Potential impacts on agriculture are recognized as a public concern in the planning area. This concern will be addressed during activity planning, after delineation of proposed leasing tracts.	In the unit resource analyses* prepared for the McKenzie-Williams MFP an impact assessment focusing on agricultural and coal values is discussed generically, using currently published information. Detailed and site-specific agricultural impacts will be studied during activity planning, after potential leasing tracts have been identified.
2. Air Quality There is concern that mine-mouth coal conversion facilities will degrade air quality in the local or regional area.	Potential impacts on air quality are recognized as public concerns in the planning areas. The federal coal program provides for consideration of air quality concerns during activity planning, after delineation of proposed leasing tracts.	No planning criteria were developed for air quality, because it is not considered in the MFP decision.

*Available for public inspection at the Dickinson District Office.

ISSUE	END PRODUCT	PLANNING CRITERIA
3. Oil and Gas Conflict	Identify oil and gas areas where coal leasing will be deferred.	Areas of significant oil and gas production should not be leased for coal mining until the petroleum is exhausted, unless it can be shown that conflicts between the two types of development can be mitigated. Areas of significant conflicts were determined after consultation with the Conservation Division of the U.S. Geological Survey, now a part of the BLM.
4. Reclamation of Agricultural Lands Concerns associated with the question of whether or not cropland and rangeland can be reclaimed to pre-mining productivity.	Reclamation is recognized as a public concern in the planning area. This subissue will be addressed during activity planning, after delineation of proposed leasing tracts.	County general soil surveys of North Dakota are the basis for a generalized evaluation of reclamation potential. Reclamation will be considered further during activity planning, but no final judgement on reclaimability is rendered until mine plans have been evaluated.
5. Water Concern for the protection of water supplies.	Areas will be identified as follows: (1) exclude from leasing or mining; (2) study further; or (3) acceptable for further consideration for leasing.	Areas where data shows that an acceptable replacement water supply is not available will be excluded from leasing.
6. Social and Economic Concerns Coal development results in population increases that affect public finance capabilities, public service adequacy, lifestyles, and social structures.	This subissue is recognized as a public concern in the planning areas and will be addressed during activity planning, after delineation of proposed leasing tracts.	Social and economic impacts resulting from potential coal development are discussed generically in the Planning Area Analysis, using available published data and the comments received through public participation activities.
7. Woodland, Wetland, and Native Prairie These types of land provide unique and essential habitat for many wildlife species. There is concern over the potential loss of this habitat due to coal development.	The following options are available: (1) unsuitable for leasing or mining; (2) acceptable for further consideration for leasing pending further study; (3) acceptable only if appropriate mitigating measures are applied; (4) acceptable for further consideration for leasing.	To apply unsuitability criteria 9-15, essential wildlife habitat was identified through interpretation of color infrared aerial photos.

ISSUE	END PRODUCT	PLANNING CRITERIA
Oil and gas exploration, development and production conflicts with other land uses and causes impacts to other resources.	Lease applications received on federal oil and gas parcels will be categorized into one of the following: a. Do not lease; b. Lease with standard stipulations; c. Lease with standard and special stipulations. These categorizations will be reviewed annually.	In processing the lease application the following are considered: a. District Oil and Gas Programmatic Environmental Assessment; b. District overlay files; c. Interagency agreements; d. Correspondence between the Montana State Office and the Dickinson District Office. During land use planning, information in the assessment and overlay files was updated.
Rangeland management status needs to be determined and categorized. Impacts of livestock grazing on the rangeland resources need to be assessed.	Categorize all grazing allotments into one of the following management cateogories: (1) improve, (2) maintain present status, (3) provide custodial management. Management alternatives will be developed for BLM surface. These alternatives will be addressed in the proposed District environmental assessment for grazing.	Criteria checklist developed by the District. Elements of the BLM Grazing Management Policy, and Rangeland Improvement Policy were used to evaluate all grazing allotments. Management alternatives listed in State Director Guidance* were addressed. Additional aternatives developed through the BLM planning system were also considered.
Unleased (grazing) lands need to be brought under grazing management or excluded from unauthorized grazing.	Initiate grazing leases on all lands determined to be suitable for grazing. Exclude or restrict grazing where it is unsuitable or undesired on land identified for retention under land base adjustment.	Identify current use. Identify management potential for grazing or other resources. Determine grazing capability and potential. Define other resource priorities that restrict or exclude grazing.
Land base adjustments are needed in order to improve management efficiencies of Bureau resource programs.	All public lands will be delineated into three general categories: (1) disposl (sale, transfer, or exchange); (2) retention; or (3) further study.	Lands identified for potential removal from the federal estate through sale, exchange, or transfer were evaluated according to land pattern review criteria listed in State Director Guidance.*

*Distributed to the public upon request.

APPENDIX C
COAL POTENTIAL

HIGH COAL DEVELOPMENT POTENTIAL

For inclusion into a high development potential tract an area must meet all of the following criteria:

1. The area must be underlain by one or more beds of coal with individual thicknessess of 5 ft. (1.5m) or more.

2. The area must be underlain by a sufficient quantity of 5 ft. (1.5m) or thicker coal beds to achieve a 9.2 or better mining ratio (10 to 1 stripping ratio).

3. There can be no more than 150 ft. (45.7m) of rock removed to recover the coal bed(s) under consideration.

MODERATE COAL DEVELOPMENT POTENTIAL

For inclusion into a moderate potential tract an area must meet all of the following criteria:

1. The area must be underlain by one or more beds of coal with individual thicknesses of 5 ft. (1.5m) or more.

2. The area must be underlain by a sufficient quantity of 5 ft. or thicker coal beds to have a mining ration of 18.4 or less (20 to 1 or less stripping ratio).

3. There can be no more than 200 ft. (61.0m) of rock removed to recover the coal bed(s) under consideration.

4. The area must not be able to meet all three high development potential criteria.

LOW COAL DEVELOPMENT POTENTIAL

For inclusion into a low potential tract an area must lie within the study area boundaries and fail to meet the high or moderate coal development potential criteria.

APPENDIX D
UNSUITABILITY CRITERIA

Criteria for assessing lands unsuitable for all or certain stipulated methods of coal mining.

Criterion Number 1. All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests and Federal lands in incorporated cities, towns and villages.

Exceptions. (i) A lease may be issued within the boundaries of any National Forest if the Secretary finds no significant recreational, timber, economic or other values which may be incompatible with the lease; and (A) surface operations and impacts are incident to an underground coal mine, or (B) where the Secretary of Agriculture determines, with respect to lands which do not have significant forest cover within those National Forests west of the 100th meridian, that surface mining may be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act of 1977. (ii) A lease may be issued within the Custer National Forest with the consent of the Department of Agriculture as long as no surface coal mining operations are permitted.

Exemptions. The application of this criterion to lands within the listed land systems and categories is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977. The application of the portion of this criterion applying to land proposed for inclusion in the listed systems does not apply to lands: to which substantial legal and financial commitments were made prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 2. Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial or public purposes on Federally owned surface shall be considered unsuitable.

Exceptions. A lease may be issued, and mining operations approved in such areas if the surface management agency determines that:

(i) All or certain types of coal development (e.g., underground mining) will not interfere with the purpose of the right-of-way or easement; or
(ii) The right-of-way or easement was granted for mining purposes; or
(iii) The right-of-way or easement was issued for a purpose for which it is not being used; or
(iv) The parties involved in the right-of-way or easement agree, in writing, to leasing; or
(v) It is impractical to exclude such areas due to the location of coal and method of mining and such areas or uses can be protected through appropriate stipulations.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 3. Federal lands affected by section 522(e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Exceptions. A lease may be issued for lands:

(i) Used as mine access roads or haulage roads that join the right-of-way for a public road;
(ii) For which the Office of Surface Mining Reclamation and Enforcement has issued a permit to have public roads relocated;
(iii) If, after public notice and opportunity for public hearing in the locality, a written finding is made by the authorized officer that the interests of the public and the landowners affected by mining with 100 feet of a public road will be protected;
(iv) For which owners of occupied buildings have given written permission to mine within 300 feet of their dwellings.

Exemptions. The application of this criterion is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977.

Criterion Number 4. Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

Exemption. The application of this criterion to lands for which the Bureau of Land Management is the surface management agency and lands in designated wilderness areas in National Forests is subject to valid existing rights.

Criterion Number 5. Scenic Federal lands designated by visual resource management analysis as Class 1 (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 6. Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 7. All publicly owned places on Federal lands which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, are necessary to protect the inherent values of the property that made it eligible for listing in the National Register.

APPENDIX D
UNSUITABILITY CRITERIA (continued)

Exceptions. All or certain stipulated methods of coal mining may be allowed if, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, they are approved by the surface management agency, and where appropriate, the State or local agency with jurisdiction over the historic site.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 8. Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

Exceptions. A lease may be issued and mining operation approved in an area or site if the surface management agency determines that:

(i) With the concurrence of the state, the area or site is of regional or local significance only;
(ii) The use of appropriate stipulated mining technology will result in no significant adverse impact to the area or site; or
(iii) The mining of the coal resource under appropriate stipulations will enhance information recovery (e.g., paleontological sites).

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which includes operations on which a permit has been issued.

Criterion Number 9. Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved if, after consultation with the Fish and Wildlife Service, the Service determines that the proposed activity is not likely to jeopardize the continued existence of the listed species and/or its critical habitat.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 10. Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved it, after consultation with the state, the surface management agency determines that the species will not be adversely affected by all or certain stipulated methods of coal mining.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 11. A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exceptions. A lease may be issued if:

(i) It can be conditioned in such a way, either in manner or period of operation, that eagles will not be disturbed during breeding season; or
(ii) The surface management agency, with the concurrence of the Fish and Wildlife Service, determines that the golden eagle nest(s) will be moved.
(iii) Buffer zones may be decreased if the surface management agency determines that the active eagle nests will not be adversely affected.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 12. Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Exception. A lease may be issued if the surface management agency determines that all or certain stipulated methods of coal mining can be conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 13. Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the falcon habitat during the periods when such habitat is used by the falcons.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 14. Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

APPENDIX D
UNSUITABILITY CRITERIA (continued)

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the migratory bird habitat during the periods when such habitat is used by the species.

Exemption. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 15. Federal lands which the surface management agency and the state jointly agree are fish and wildlife habitat for resident species of high interest to the state and which are essential for maintaining these priority wildlife species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

(i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse and prairie chicken;
(ii) Winter ranges most critical for deer, antelope and elk; and
(iii) Migration corridors for elk.

A lease may be isued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 16. Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining, and to the natural and beneficial values of the floodplain on the lease tract and downstream.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 17. Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

Exception. A lease may be issued where the surface management agency in consultation with the municipality (incorporated entity) or the responsible governmental unit determines, as a result of studies, that all or certain stipulated methods of coal mining will not adversely affect the watershed to any significant degree.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 18. Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands 1/4 mile from the outer edge of the far banks of the water, shall be unsuitable.

Exception. The buffer zone may be eliminated or reduced in size where the surface management agency determines that it is not necessary to protect the National Resource Waters.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit haa been issued.

Criterion Number 19. Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley vloors according to the definition in § 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

Exemptions. This criterion does not apply to surface coal mining operations which produced coal in commercial quantities in the year preceding August 3, 1977, or which had obtained a permit to conduct surface coal mining operations.

Criterian Number 20. Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

Exceptions. A lease may be issued when:

(i) Such criterion is adopted by the Secretary less than 6 months prior to the publication of the draft comprehensive land use plan or land use analysis plan, or supplement to a comprehensive land use plan, for the area in which such land is included; or
(ii) After consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not adversely affect the value which the criterion would protect.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Underground mining exemption from criteria.

(a) Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in § 3400.0-5 of this title, on any lease, if issued.
(b) Where underground mining will include surface operations and surface impacts on Federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency finds that a relevant exception or exemption applies.

Source: 43 CFR 3461.1

APPENDIX E

Public Law 95-87
95th Congress

An Act

To provide for the cooperation between the Secretary of the Interior and the States with respect to the regulation of surface coal mining operations, and the acquisition and reclamation of abandoned mines, and for other purposes.

Aug. 3, 1977
[H.R. 2]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Surface Mining Control and Reclamation Act of 1977".

Surface Mining Control and Reclamation Act of 1977.
30 USC 1201 note.

SURFACE OWNER PROTECTION

30 USC 1304.

SEC. 714. (a) The provisions of this section shall apply where coal owned by the United States under land the surface rights to which are owned by a surface owner as defined in this section is to be mined by methods other than underground mining techniques.

(b) Any coal deposits subject to this section shall be offered for lease pursuant to section 2(a) of the Mineral Lands Leasing Act of 1920, as amended.

30 USC 201.

Consent.

(c) The Secretary shall not enter into any lease of Federal coal deposits until the surface owner has given written consent to enter and commence surface mining operations and the Secretary has obtained evidence of such consent. Valid written consent given by any surface owner prior to the enactment of this Act shall be deemed sufficient for the purposes of complying with this section.

(d) In order to minimize disturbance to surface owners from surface coal mining of Federal coal deposits and to assist in the preparation of comprehensive land-use plans required by section 2(a) of the Mineral Lands Leasing Act of 1920, as amended, the Secretary shall consult with any surface owner whose land is proposed to be included in a leasing tract and shall ask the surface owner to state his preference for or against the offering of the deposit under his land for lease. The Secretary shall, in his discretion but to the maximum extent practicable, refrain from leasing coal deposits for development by methods other than underground mining techniques in those areas where a significant number of surface owners have stated a preference against the offering of the deposits for lease.

"Surface owner."

(e) For the purpose of this section the term "surface owner" means the natural person or persons (or corporation, the majority stock of which is held by a person or persons who meet the other requirements of this section) who—

(1) hold legal or equitable title to the land surface;

(2) have their principal place of residence on the land; or personally conduct farming or ranching operations upon a farm or ranch unit to be affected by surface coal mining operations; or receive directly a significant portion of their income, if any, from such farming or ranching operations; and

(3) have met the conditions of paragraphs (1) and (2) for a period of at least three years prior to the granting of the consent.

In computing the three-year period the Secretary may include periods during which title was owned by a relative of such person by blood or marriage during which period such relative would have met the requirements of this subsection.

(f) This section shall not apply to Indian lands.

(g) Nothing in this section shall be construed as increasing or diminishing any property rights by the United States or by any other landowner.

APPENDIX F
SURFACE OWNER CONSULTATION STATISTICS

	DEPOSITS				
	Hanks	Sand Creek	Williston	Tobacco Garden	Bennie Peer
I. GENERAL INFORMATION					
Number of surface owners over federal coal	175	263	303	60	33
Number of surface owners who responded to survey	115	140	141	28	20
Percentage of total	66%	53%	47%	47%	61%
II. OWNERS OPPOSED TO FEDERAL COAL LEASING (that would lead to mining coal under their lands)	*Number*	*Number*	*Number*	*Number*	*Number*
Part or all of surface not leased for mining	61	71	61	12	16
III. OWNERS OPPOSED BUT SURFACE LEASED FOR MINING[1]	13	18	23	0	0
IV. OWNERS IN FAVOR OF FEDERAL COAL LEASING					
Part of all surface not leased for mining	3	6	15	2	1
Surface leased for mining	7	12	15	0	0
V. SPLIT PREFERENCE					
Leased	1	1	0	0	0
Not leased	0	0	0	2	0
VI. OWNERS RESPONDED BUT WERE UNDECIDED OR DID NOT STATE PREFERENCE					
Part of all surface not leased for mining	22	19	15	10	2
Surface leased for mining	6	11	11	2	0
Split preference leased	1	0	0	0	0
Split preference part leased	2	0	0	0	0
VII. OWNERS FAILED TO RESPOND, NOT CONTACTED, OR NOT QUALIFIED[2]					
Owners could not be contacted or did not respond	60	122	162	32	13
Owners not qualified	0	1	1	0	1

[1]In situations where all of a surface owner's land over federal coal has been leased for mining, the surface owner cannot be counted as opposed, even if he has expressed opposition to mining (43 CFR 3420.2-3]e[]2[).

[2]Surface owners who are obviously not qualified according to Public Law 95-87 (see Appendix E). No comprehensive effort was made to determine whether or not surface owners were qualified.

NOTE: The private surface lease—between a landowner and a coal company—should not be confused with a federal coal lease. Where the federal government owns the coal, the surface owner cannot lease the coal. The surface lease for coal mining is a consent to allow mining, and it stipulates the amount of money to be paid to the surface owner. The federal coal lease, on the other hand, covers only the coal, and it stipulates the royalty to be paid to the federal government. Sometimes a surface lease (for coal mining) is called a "coal lease," and the same form for leasing private coal or leasing the surface over federal coal may be used by industry.

APPENDIX G

LAND PATTERN REVIEW AND LAND ADJUSTMENTS

The BLM has been concerned with the need for land adjustment for many years. The public land pattern in the McKenzie-Williams Planning Area is fragmented, with approximately 3,280 acres existing in a scattered pattern of relatively small tracts, ranging in size from 40 to 160 acres.

The BLM is authorized to enter into land adjustments through the Federal Land Policy and Management Act of 1976 (FLPMA) and other public land laws. The principle also applies to adjustments in the mineral estate of lands, particularly where there is a split-estate situation with federally owned mineral estate and privately owned surface, or vice versa.

Major types of land adjustment concerning the BLM in the planning area are:

1. BLM/Forest Service jurisdictional transfer
2. State Exchange
3. Complex Multi-party Exchanges
4. Regular Private Exchange
5. Acquisition
6. Public Sale
7. Community Expansion
8. Withdrawals
9. Mineral Exchanges

In utilizing the mechanisms for land adjustment, the BLM should be especially concerned with improving land usage by the public, and improving management of public values and resources by the managing agency. This involves more than simply blocking up the land pattern and disposing of isolated parcels. The Bureau's adjustment decisions will be made after thorough analysis and study of land use potential, including the following long-term objectives for management.

Objectives

1. Identify and transfer those public lands which could attain a higher and better use in the private sector or if managed by another public agency.

2. Retain those public lands with identified public values; acquire (primarily by exchange) other lands critical to public land management objectives.

3. Adjust the BLM land pattern to get the most public value for the money invested.

4. Continue ongoing land adjustment projects, including in-lieu selections, state and other exchanges, BLM/FS jurisdictional study, etc.

**This is an edited version of State Director Guidance that has specific application to North Dakota.*

5. Full disclosure and public review and involvement would be accomplished under the requirements of FLPMA, NEPA, and other related legislation.

6. Identify and adjust lands where that adjustment will satisfy the objectives of both the public and private sectors.

Public lands have been identified in three broad categories—Disposal (sale, transfer or exchange), Retention, and Further Study—to provide for the implementation of the long-term adjustment program. The proposed program has four phases: (1) Develop criteria for categorization of public land. (2) Delineate present public lands into the three general categories. (3) Plan amendments and environmental analyses will be done on the categories. (These documents will be subject to public review,and a call for interest in exchanges or sales will be issued.) (4) Identify priority areas to begin sale or other disposals in 1984 and continuing.

This program is designed to meet FLPMA and NEPA requirements, and to use present BLM land use planning mechanisms effectively in reaching land adjustment decisions. The overall goal of the program is to improve public land management through a variety of methods, including sale, exchange, or other methods of transfer.

Land Pattern Review Criteria

The public lands subject to these criteria are those lands, minerals, or interests in land administered by BLM. Criteria are used in categorizing the public lands for retention, disposal, or further study. Criteria are also provided to facilitate the selection of lands to be received in exchanges or other types of acquisition. The criteria are designed to provide the manager flexibility in identifying circumstances which dictate the category in which lands can be placed.

A. Retention—These are lands which will remain in public ownership and be managed by BLM. BLM is interested in exchanges to improve manageability of areas with important public values. Although the underlying philosophy is long-term public ownership, minor adjustments involving sales and exchanges of lands may occur when the public interest is better served.

1. Wetlands and riparian areas under Executive Order 11990.

2. Areas of national economic significance including, but not limited to:

   a. Designated Mineral Resource Areas where disposal of the surface would unnecessarily interfere with the logical development of the mineral estate, e.g., surface minerals, coal, phosphate, known geologic structures, etc.

3. Areas where management is cost-effective or lands containing other important characteristics and public values which can best be managed in public ownership by BLM, including but not limited to:

   a. strategic tracts along rivers, streams, lakes, ponds, springs, and trails;

   b. important hunting or fishing areas;

   c. recreation sites and areas;

4. Lands with a combination of broad multiple-use values which dictate they should be retained in public ownership and managed by BLM.

5. Areas where future plans will lead to further consolidation and improvement of land patterns and reduce the costs of management.

6. Public lands withdrawn by the BLM or other federal agency for which the purpose of the withdrawal remains valid and the resource uses can be managed by BLM concurrently.

7. Public lands which provide public access and contain previously mentioned public values which, when considered together, warrant their retention.

B. Disposal—These are lands identified for potential removal from public ownership through sale or exchange, or through transfer to federal, state, county or local public entities. In addition to land internally identified for disposal, BLM will respond to proposals from the public. Disposal decisions will be made in the public interest based upon the following criteria:

1. Lands specifically identified through land use plans for sale, exchange, transfer or Recreation and Public Purposes Act applications.

2. Lands of limited public value.

3. Widely scattered parcels which are difficult for BLM to manage with anything beyond minimal custodial administration.

4. Lands with high public values proper for management by other federal agencies, or state or local government. Incorporate, when applicable, the objectives of the Interior Secretary's Good Neighbor Policy.*

5. Lands which will serve important public objectives (such as community expansion) as provided in the Federal Land Policy and Management Act (FLPMA) Sec. 203(a)(3).

**The Secretary's program inviting state governors to participate in the nomination of federal lands needed by state and local governments and to expedite their transfer under the Recreation and Public Purposes Act.*

6. Lands where disposal would aid in aggregating or repositioning other public lands or public land resource values in retention areas to facilitate national, state, and local objectives.

7. Lands with long-term unauthorized use problems, and which are not required for specific public purposes.

8. Lands where disposal would increase the range of economic opportunities provided to the general public.

9. Lands in which the highest value or most appropriate long-term use is agriculture, or commerical or industrial development.

10. Lands involved in BLM/FS jurisdictional transfer, state indemnity selections and ongoing exchanges.

C. Further Study—Lands that fail to clearly meet either retention or disposal criteria will be subject to further study. Lands in this category will include:

1. Lands where disposition would pose questions as to consistency with other federal, state, local government or tribal land use plans.

2. Lands under withdrawal review.

3. Lands where less than full fee conveyance would reserve specifically identified significant public values to protect public interest.

4. Lands where management is not cost-effective, but not clearly negative, and where multiple-use values are marginal.

5. Lands where cooperative management best serves the public interest.

6. Lands with potential for future public use—based on developing needs.

7. Lands with potential for transfer under the Good Neighbor program.

8. Lands in areas of public access deficiencies.

D. Selection Criteria—Used to evaluate proposals which would result in the transfer of lands or minerals to the Bureau of Land Management through exchange or other transactions.

These criteria help to assure that any BLM decision to acquire a tract of land provides signficant public benefits. The criteria range from "general" standards, against which to evaluate all proposals, to "specific" guidelines covering the selected or prioritized program areas.

These standards are designed to provide consistent direction, while allowing the line manager flexibility to meet local, state, and national needs.

General Criteria

All proposals will be evaluated to determine if the selected lands would:

1. Facilitate access to areas retained for long-term public use.

2. Enhance congressionally designated areas, rivers, or trails

3. Be in or near "retention" areas. Acquisition in "Further Study" areas or "disposal" areas will ony be considered if the action leads to and/or facilitates long-term needs or program objectives.

4. Facilitate national, state and local BLM priorities or mission statement needs.

5. Facilitate implementation and/or be consistent with BLM land use and activity plans.

6. Stabilize or enhance local economies or values.

7. Meet long-term public land management goals, as opposed to short-term goals.

8. Be of sufficient size to improve use of adjoining public lands or, if isolated, large enough in scale to allow the identified potential public land use.

9. Allow more diverse use, more intensive use, or a change in uses to better fulfill the Bureau's mission.

10. Maintain or enhance important and recognized public land values. Especially noteworthy are identified, designated, special, or high interest value areas.

11. Enhance the opportunity for new or emerging public land uses or values.

12. Contribute to a wide spectrum of uses or a large number of public land users.

13. Facilitate management practices, uses, scale of operations or degrees of management intensity that are viable under economic program efficiency standards.

14. Secure for the public significant water-related land interests. These interests will include lake shore, river front, stream, pond, or spring sites.

GLOSSARY

ACTIVITY PLANNING—Site-specific planning which precedes actual development. This is the most detailed level of BLM planning.

ALLUVIAL VALLEY FLOORS—The definition of this phrase as used for surface mining control and reclamation as stated in Public Law 95-87, August 3, 1977 [Sec. 701(1)] is:

"Alluvial valley floors" means the unconsolidated stream land deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation and windblown deposits.

AQUIFER—A rock formation, group of rock formations or part of a rock formation that contains enough water-saturated permeable material to yield water to a spring or well.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA)—Public Law 94-579. October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy and basic management guidance.

HABITAT—A specific set of physical conditions that surround a species, group of species or a large community. In wildlife management, the major constituents of habitat are considered to be food, water, cover and living space.

MITIGATION MEASURES—Methods or procedures committed to by BLM for the purpose of reducing or lessening the impacts of an action.

MULTIPLE USE—Balanced management of the various surface and subsurface resources, with permanent impairment of the productivity of the land, that will best meet present and future needs.

RECREATION AND PUBLIC PURPOSES ACT (R&PP ACT)—This act authorizes the Secretary of the Interior to lease or convey public lands for recreational and public purposes under specified conditions of states or their political subdivisions, and to nonprofit corporations and associations.

STATE DIRECTOR GUIDANCE—This document, published in April 1983, provides direction and policy interpretations for BLM personnel in Montana and the Dakotas. It also defines the major BLM planning goals, priorities and constraints within the 3-state area. The document is available to the public upon request.

SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977 (SMCRA)—Public Law 95-87, August 3, 1977—This law provides for: (1) surface coal mining using methods which will protect the environment and the rights of surface owners over Federally reserved coal; (2) reclamation of mined land as contemporaneously as possible with mining operations; (3) reclamation of previously abandoned mine areas.

UNIT RESOURCE ANALYSIS (URA)—A comprehensive display of physical resource data and an analysis of the current use, production, condition and trend of the resources and the potentials and opportunities within a planning unit, including a profile of ecological values.

WATERSHED—All lands which are enclosed by a continuous hydrologic drainage divide and lie upslope from a specified point on a stream.

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CANADA

Scale 1:1 000 000
1 inch equals approximately 16 miles
50 0 10 20 30 40 Miles
50 0 10 20 30 40 50 Kilometers
Lambert conformal conic projection
Standard parallels 33° and 45°

T163N
T162N
T161N
T160N
T159N
T158N
T157N
T156N
T155N
T154N
T153N
T152N
T151N
T150N
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T134N
T133N
T132N
T131N
T130N
T129N

R105W R104W R103W R102W R101W R100W R99W R98W R97W R96W R95W R94W R93W R92W R91W
R90W R89W R88W R87W R86W R85W R84W R83W R82W R81W R80W R79W R78W R77W R76W R75W

DIVIDE
BURKE
RENVILLE
WARD
MOUNTRAIL
WILLIAMS
McKENZIE
DUNN
MERCER
OLIVER
McLEAN
SHERIDAN
McHENRY
BURLEIGH
MORTON
GOLDEN VALLEY
BILLINGS
STARK
SLOPE
BOWMAN
ADAMS
GRANT
SIOUX

McKENZIE-WILLIAMS
NORTH DAKOTA
WEST-CENTRAL
SOUTHWEST

DES LACS NATIONAL WILDLIFE REFUGE
LOSTWOOD NATIONAL WILDLIFE REFUGE
UPPER SOURIS NATIONAL WILDLIFE REFUGE
LOWER SOURIS NATIONAL WILDLIFE REFUGE
LAKE ZAHL NATIONAL WILDLIFE REFUGE
SHELL LAKE NATIONAL WILDLIFE REFUGE
McLEAN NATIONAL WILDLIFE REFUGE
SNAKE CREEK NATIONAL WILDLIFE REFUGE
LAKE ILO NATIONAL WILDLIFE REFUGE
FLORENCE LAKE NATIONAL WILDLIFE REFUGE
CANFIELD LAKE NATIONAL WILDLIFE REFUGE
LONG LAKE NATIONAL WILDLIFE REFUGE
WHITE LAKE NATIONAL WILDLIFE REFUGE
ARROWWOOD LAKE NATIONAL WILDLIFE REFUGE
PRETTY ROCK NATIONAL WILDLIFE REFUGE
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK (NORTH UNIT)
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK (ELKHORN RANCH UNIT)
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK (SOUTH UNIT)
INDIAN RESERVATION
STANDING ROCK INDIAN RESERVATION

Lake Sakakawea
Missouri River
Little Missouri River
Knife River
White Earth River
Des Lacs River
Souris River
Little Heart River
Heart River
Cannonball River

MAP 1

LEGEND

- BLM Planning Areas
- Coal Deposits
- Existing Coal Tracts

BLM PLANNING AREAS